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Since 2010, Utah has led the country in employment and demographic growth. This growth has produced exceptionally strong demand for housing, which in turn has put upward pressure on housing prices.

## What Rapidly Rising Prices Mean for Housing Affordability

By James Wood, Dejan Eskic, and D.J. Benway

 $I N F O R M E D D E C I S I O N S^{TM}$ Kem C. Gardner Policy Institute and the David Eccles School of Business



### What Rapidly Rising Prices Mean for Housing Affordability

### **ANALYSIS IN BRIEF**

Since 2010, Utah has led the country in employment and demographic growth. This growth has produced exceptionally strong demand for housing, which in turn has put upward pressure on housing prices. A housing shortage has ensued, with the supply of new homes and existing "for sale" homes falling short of demand. While the impact of higher housing prices are widespread, affecting buyers, sellers, and renters in all income groups, those households below the median income and particularly low income households are disproportionately hurt by higher housing prices. For these households, higher housing prices can lead to a severe housing cost burden — paying more than 50 percent of their income toward housing — a situation faced by one in eight households (120,000 households) in Utah. Market and demographic conditions are primarily responsible for driving-up housing prices, however, government policies at all levels can help to temper price increases and mitigate the impact of higher prices.

### Key findings include the following:

- Housing price appreciation trends Over the past 26 years, a generation demographically, the average annual increase in housing prices has been 5.7 percent. If that rate of increase continues for the next 26 years, the median price of a home in the Salt Lake and Provo-Orem metropolitan areas would be \$1.3 million. Even when applying the real rate of increase (inflation adjusted) over the past 26 years of 3.32 percent, the median price would be \$736,600. And if this real rate of increase is cut in half to 1.7 percent the median price would still be \$483,000 in real dollars; equivalent to Seattle housing prices in 2017.
- Incomes not keeping pace Housing affordability in Utah, over the long-term, is threatened due to the gap between the annual real rate of increase in housing prices of 3.32 percent and the annual real rate of increase in household income of 0.36 percent. In Utah, housing prices increase much faster than incomes consequently many households face high levels of housing cost burdens.
- Household income and housing affordability The challenges of housing affordability are closely linked to household income. For households below the median income, high housing prices often jeopardize economic well-being and prevent

homeownership. For most households above the median income, homeownership is still achievable, due primarily to several years of historically low interest rates.<sup>1</sup> However, an increase in mortgage rates to six percent — a likely possibility in the next few years — would jeopardize homeownership opportunities for many households with higher incomes and seriously reduce housing affordability in Utah.

- Greatest challenge is for households with incomes below the median - The current affordable housing crisis in Utah is concentrated in households with incomes below the median. A household with income below the median has a one in five chance of a severe housing cost burden, paying at least 50 percent of their income toward housing, while a household with income above the median has a one in 130 chance. By another measure, a household with income below the median is 32 times as likely to have a severe housing cost burden as a household with income above the median.
- Many of the most vulnerable families lack affordable, safe, and stable housing – Rising housing prices and the shrinking supply of affordable housing means low income families spend more on housing and less on food, health care, transportation, vocational training, and their children's needs. Affordable and decent shelter is central to a child's health and development as well as family and neighborhood stability. Policies to expand affordable housing are tantamount to human capital investments, which are not much different than jobs and education programs. An increase in safe and stable housing for low income families would improve their children's long-term education and employment outcomes as well as reduce intergenerational poverty and advance upward mobility.
- Housing price increases could impact economic competitiveness - Housing prices in Utah have not yet been a constraint to economic growth, but there is cause for some concern. The median sales price of a home in Utah's two large metropolitan areas is already 20 percent higher than home prices in Boise, Las Vegas, and Phoenix: three cities Utah competes with for new business expansions. The housing price gap with these cities makes Utah's economic development efforts less competitive and the state less attractive as a business location.

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### Introduction

Utah business and community leaders wisely pay close attention to housing affordability.<sup>2</sup> Since 1991, Utah housing prices have outpaced every state but Colorado, Oregon, and Montana. The rate of housing price increases and challenges created by higher prices are on the minds of many decision-makers. Consequently, the Salt Lake Chamber, Utah's largest business association, contracted with the Kem C. Gardner Policy Institute to produce this report, which examines housing market trends and conditions and the growing threat to housing affordability. Section one documents the increase in housing prices in Utah and the Salt Lake Metropolitan Area. Section two discusses the recent emergence of a housing shortage in Utah. Section three examines those factors driving-up housing costs. Section four assesses the threat to housing affordability for Utah's households, and section five provides an outlook for housing prices and affordability.

### I. Comparison of Housing Prices: States, Metropolitan Areas, and Counties

Rising housing prices, in one way or another, affect every household in Utah. For many, higher prices create wealth and improved economic well-being while for others higher prices threaten housing affordability and housing stability. Given the pervasive impact of housing prices on households it is important to understand how price trends in Utah compare to trends in other states and metropolitan areas. Comparisons of the state and metropolitan areas add context and perspective to the local experience.

### Utah's High Rate of Growth in Housing Prices

Since 1991 the increase in housing prices in Utah ranks fourth highest in the U.S. Utah's housing prices have increased at a four percent annual growth rate compared to 1.5 percent nationally. The annual growth was derived from the change in the housing price index (1991 = 100) published by the Federal Housing Finance Agency (see Figure 1). A simple example illustrates the remarkable increase in prices in Utah. At a four percent annual growth rate, the value of a \$125,000 home in Utah in 1991 increases to \$347,000 by 2017. At the national growth rate of 1.5 percent, the value of that same home increases to only \$184,000 by 2017.<sup>3</sup> Over the long-term housing price increases in Utah rank among the highest in the county.

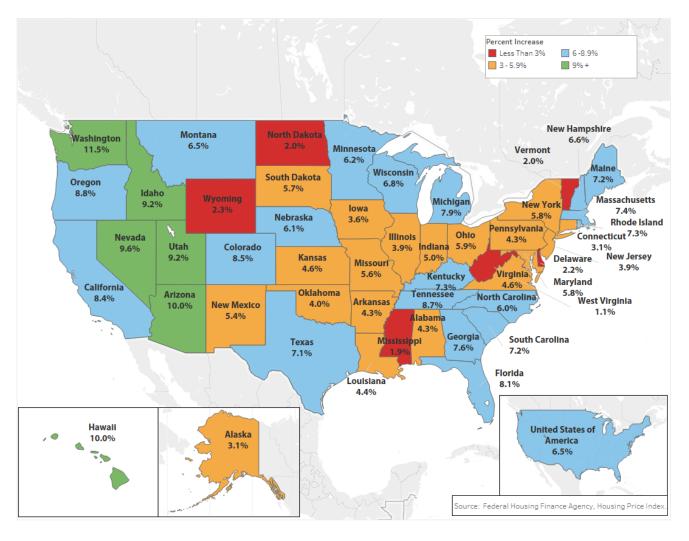
In the past year Utah ranks fifth, tied with Idaho, in the year-over (2016-2017) increase in housing prices. Overall, nationwide, 2017 was a very strong year for housing prices. Twenty-five states had price increases of at least six percent (see Map 1). Western states, including Hawaii and Alaska, led the country in housing price

### Figure 1 Percent Change in Housing Price Index by State – Purchase Only, 1991 to third quarter 2017

Connecticut	71.7
Ohio	91.8
Indiana	96.5
Delaware	97.2
Illinois	98.5
Mississippi	100.0
Alabama	111.2
Arkansas	111.3
West Virginia	111.9
Michigan	115.1
Pennsylvania	116.6
Rhode Island	119.8
Vermont	121.7
Missouri	126.2
Georgia	127.3
Nevada	127.9
NorthCarolina	128.7
Kentucky	132.0
Kansas	132.5
South Carolina	133.4
New York	133.7
New Jersey	133.8
New Mexico	135.1
Oklahoma	135.3
lowa	136.4
New Hampshire	137.5
Maine	140.3
Maryland	146.5
Wisconsin	147.6
Nebraska	148.5
USA	148.7
Tennessee	149.0
Virginia Hawaii	151.6
Alaska	151.8
California	167.2
Minnesota	172.4
Massachusetts	175.3
Louisiana	175.6
Texas	176.4
South Dakota	182.9
Florida	186.8
Idaho	191.1
Arizona	199.0
North Dakota	213.3
Wyoming	231.0
Washington	238.0
Utah	276.1
Montana	279.4
Oregon	303.2
Colorado	327.3
	0 50 100 150 200 250 300 350

increase. The six states with a price increase over nine percent are all western states. The state-to-state comparisons have looked at rates of increase rather than absolute housing values. A comparison of home values adds another dimension to our analysis. The home value data come from U.S. Census Bureau's, American Community Survey, which publishes the median value

### Map 1 Percent Change in Housing Price Index, 2016-2017



of owner occupied housing units. The median value in the Census data includes all owner occupied units: single family, townhome, twin home, and condominium units. The median price of an owner occupied unit in Utah in 2016 was \$250,300. The state ranked 14<sup>th</sup> in the median value of an owner occupied unit in 2016 (see Figure 2). Utah's ranking has moved up several positions in recent years due to the high rate of growth in housing prices. The state ranked 22<sup>nd</sup> in 2005, eight positions lower than in 2016.

Zillow also publishes housing values at the state level. Zillow's estimates include only single family homes. The top ranked states in Zillow's data include most of the same top ranked states in the Census data. Zillow ranks Utah 12<sup>th</sup> in the median value of a single family home (see Table 1).

### **Housing Prices in Metropolitan Areas**

We now move from a comparison of statewide housing prices to a comparison of metropolitan area prices. Price trends for metropolitan areas provide a more pertinent measure of price behavior since metropolitan areas include large urban counties with high concentrations of population and households.

### Table 1

### Top Ranked States by Median Sales Price of Single Family Home, January 2018

Rank	State	Median Sales Price
1	Hawaii	\$743,300
2	California	\$537,700
3	Massachusetts	\$393,900
4	Colorado	\$361,300
5	Washington	\$356,500
6	Oregon	\$325,900
7	New Jersey	\$315,800
8	Alaska	\$288,900
9	Maryland	\$285,200
10	Nevada	\$279,400
11	Rhode Island	\$273,300
12	Utah	\$273,100

Source: Zillow Home Value Index.

### Figure 2 Median Value of Owner Occupied Housing Units by State, 2016

Missississi		
Mississippi	\$113,900	
West Virginia	\$117,900	
Arkansas Oklahoma	\$123,300	
	\$132,200	
Indiana	\$134,800	
Kentucky	\$135,600	
Alabama	\$136,200	
Ohio	\$140,100	
lowa	\$142,300	
Kansas	\$144,900	
Michigan	\$147,100	
Nebraska	\$148,100	
Missouri	\$151,400	
South Carolina	\$153,900	
Tennessee	\$157,700	
Louisiana	\$158,000	
South Dakota	\$160,700	
Texas	\$161,500	
North Carolina	\$165,400	
Georgia	\$166,800	
New Mexico	\$167,500	
Wisconsin	\$173,200	
Pennsylvania	\$174,100	
North Dakota	\$184,100	
Maine	\$184,700	
Illinois	\$186,500	
Idaho	\$189,400	
Florida	\$197,700	
Arizona	\$205,900	
Wyoming	\$209,500	
Minnesota	\$211,800	
Montana	\$217,200	
Vermont	\$223,700	
Nevada	\$239,500	
Delaware	\$243,300	
Rhode Island	\$247,700	
Utah	\$250,300	
New Hampshire	\$251,100	
Virginia	\$264,000	
Alaska	\$267,800	
Connecticut	\$274,600	
Oregon	\$287,100	
New York	\$302,400	
Washington	\$306,400	
Maryland	\$306,900	
Colorado	\$314,200	
New Jersey	\$328,200	
Massachusetts	\$366,900	
California	\$477,500	
Hawaii		\$592,000
		000 6700 0

\$0 \$100,000 \$200,000 \$300,000 \$400,000 \$500,000 \$600,000 \$700,000

Source: U.S. Census Bureau, American Community Survey, Median Value: Owner Occupied Housing Units 2016, Table 25077.

Price behavior is also better understood when examined over several time periods. The rates of price increases are very sensitive to the time period selected. The rates of housing price increases are considered over four time periods: 1991-2017 (the number of years representing a generation; 26 years), 2004-2017 (the run-up in prices before the Great Recession and the subsequent price recovery), 2012-2017 (the period from the trough in prices

### Table 2

### Metropolitan Areas Ranked by Percent Change in Sales Price of Single Family Home\*, 1991-2017 (median sales price)

Rank	Metro Area	1991 1 <sup>st</sup> Qtr.	2017 4 <sup>th</sup> Qtr.	Percent Change	AAGR**
1	Boulder, Colorado	\$95,000	\$484,000	409.5%	5.6%
2	Greeley Colorado	\$66,000	\$324,000	390.9%	5.4%
3	San Francisco, California	\$265,000	\$1,257,000	374.3%	5.2%
4	Fort Collins, Colorado	\$78,000	\$361,000	362.8%	5.1%
5	Portland, Oregon	\$80,000	\$364,000	355.0%	5.0%
6	San Jose, California	\$220,000	\$945,000	329.5%	4.7%
7	Salt Lake City, Utah	\$76,000	\$307,000	303.9%	4.4%
8	Reno, Nevada	\$103,500	\$415,000	301.0%	4.3%
9	Colorado Springs, Colorado	\$70,000	\$275,000	292.9%	4.2%
10	Seattle, Washington	\$130,000	\$501,000	285.4%	4.1%
11	Eugene, Oregon	\$67,000	\$255,000	280.6%	4.0%
12	Provo-Orem, Utah	\$80,000	\$302,000	277.5%	4.0%

\*111 metropolitan areas.

\*\*AAGR – average annual growth rate.

Source: National Home Builders Association.

following the Great Recession to the present), and 2016-2017 (the most recent year).

**Price Trends 1991-2017.** For the Salt Lake Metropolitan Area (Salt Lake and Tooele counties), the rate of increase in housing prices is higher than the statewide rate. From 1991 to 2017, the average annual growth rate in housing prices in the Salt Lake Metropolitan Area has been 4.4 percent compared to 4.0 percent at the statewide level. The price data for the metropolitan areas come from the National Association of Home Builders, Corelogic, and the National Association of Realtors. Price data from these sources includes some smaller high growth metropolitan areas such as Boulder, Reno, Boise, and Provo-Orem. Out of 111 metropolitan areas, the Salt Lake Metropolitan Area ranks 7<sup>th</sup> in the rate of increase in single family housing prices from 1991-2017 (see Table 2). The Provo-Orem Metropolitan Area ranks twelfth with an average annual growth rate in prices of four percent.

**Price Trends 2004-2017.** Over the 2004-2017 period, some of the small metropolitan areas drop out of the top ranking. However, the Provo-Orem Metropolitan Area is ranked 10<sup>th</sup> with an increase in housing prices of 89 percent and the Salt Lake Metropolitan Area is ranked 7<sup>th</sup> with an increase of 92 percent. Over this 13 year period, the median sales price of homes in the Salt Lake Metropolitan Area increased from \$160,000 to \$307,000 (see Table 3). In the Provo-Orem Metropolitan Area, the median price increased from \$160,000 to \$302,000.

**Price Trends 2012-2017**. During the housing market recovery (2012-2017), home prices in the Salt Lake Metropolitan Area increased by 45 percent: an average annual growth rate of 7.8

### Metropolitan Areas Ranked by Percent Change in Sales Price of Single Family Home\* 2004 -2017

(median sales price)

Rank	Metro Area	2004 1 <sup>st</sup> Qtr	2017 4 <sup>th</sup> Qtr.	Percent Change	AAGR**
1	Honolulu, Hawaii	\$275,000	\$620,000	125.5%	6.5%
2	San Francisco, California	\$592,000	\$1,257,000	112.3%	6.0%
3	San Antonio, Texas	\$109,000	\$220,000	101.8%	5.6%
4	Seattle, Washington	\$251,000	\$501,000	99.6%	5.5%
5	Portland, Oregon	\$184,000	\$364,000	97.8%	5.4%
6	Dallas. Texas	\$147,000	\$287,000	95.2%	5.3%
7	Salt Lake City, Utah	\$160,000	\$307,000	91.9%	5.1%
8	Boulder, Colorado	\$255,000	\$484,000	89.8%	5.1%
9	San Jose, California	\$500,000	\$945,000	89.0%	5.0%
10	Provo-Orem, Utah	\$160,000	\$302,000	88.8%	5.0%

\*144 metropolitan areas.

\*\*AAGR = average annual growth rate.

Source: National Home Builders Association.

#### Table 4

### Metropolitan Areas Ranked by Percent Change in the Sales Price of Single Family Home\* 2012-2017

(median sales price)

Rank	Metropolitan Area	2012 4 <sup>th</sup> Qtr.	2017 4 <sup>th</sup> Qtr.	Percent Change	AAGR**
1	Reno, Nevada	\$185,600	\$356,900	92.3%	14.0%
2	San Jose Sunnyvale, California	\$685,000	\$1,270,000	85.4%	13.1%
3	Las Vegas, Nevada	\$146,300	\$266,800	82.4%	12.8%
4	Palm Bay, Florida	\$118,300	\$215,600	82.2%	12.8%
5	Sacramento, California	\$195,200	\$349,900	79.3%	12.4%
6	Cape Coral, Florida	\$135,900	\$240,000	76.6%	12.0%
7	Denver, Colorado	\$254,800	\$414,400	62.6%	10.2%
8	Riverside San Bernardino, California	\$209,300	\$340,000	62.4%	10.2%
9	Boise, Idaho	\$145,000	\$230,700	59.1%	9.7%
10	Los Angeles, California	\$350,100	\$553,300	58.0%	9.6%
11	Dallas-Fort Worth, Texas	\$157,200	\$246,100	56.6%	9.4%
12	San Francisco, California	\$593,200	\$920,000	55.1%	9.2%
13	Panama City, Florida	\$137,300	\$211,800	54.3%	9.1%
14	Seattle, Washington	\$313,300	\$471,700	50.6%	8.5%
15	San Diego Carlsbad, California	\$405,400	\$610,000	50.5%	8.5%
16	Salt Lake City, Utah	\$216,600	\$315,100	45.5%	7.8%

\*177 metropolitan areas but does not include the Provo-Orem Metro Area.

\*\* AAGR = average annual growth rate.

Source: National Association of Realtors, Median Sales Price of Single Family Homes for Metropolitan Areas.

**Price Change 2016-2017.** In 2017 the increase in the median sales price in the Salt Lake Metropolitan Area of 11.7 percent was well above the five-year average 7.8 percent. In 2017 the Salt Lake Metropolitan Area ranked 11<sup>th</sup> out of 177 metropolitan areas (see Table 5). And as is the case with the Salt Lake Metropolitan Area, the past year is marked by an acceleration in prices for Reno, Las Vegas, and Boise.

#### Table 5

### Metropolitan Areas Ranked by Percent Increase in the Price of Single Family Home\* 2016-2017 (median sales price)

Rank	Metro Area	2016 4 <sup>th</sup> Qtr.	2017 4 <sup>th</sup> Qtr.	Percent Change
1	San Jose-Sunnyvale-Santa Clara, California	\$1,005,000	\$1,270,000	26.4%
2	Reno, Nevada	\$308,700	\$356,900	15.6%
3	Dutchess County-Putnam County, New York	\$271,800	\$313,700	15.4%
4	Kennewick-Richland, Washington	\$221,300	\$251,100	13.5%
5	Palm Bay-Melbourne-Titusville Florida	\$190,000	\$215,600	13.5%
6	Boise City -Nampa, Idaho	\$203,400	\$230,700	13.4%
7	Las Vegas-Henderson-Paradise, Nevada	\$236,200	\$266,800	13.0%
8	Tucson, Arizona	\$190,100	\$214,600	12.9%
9	Baton Rouge, Louisiana	\$184,300	\$207,700	12.7%
10	Panama City, Florida	\$189,000	\$211,800	12.1%
11	Salt Lake City, Utah	\$282,100	\$315,100	11.7%

\*177 metropolitan areas but does not include the Provo-Orem Metro Area.

Source: National Association of Realtors, Median Sales Price of Single Family Homes for Metropolitan Areas.

percent (see Table 4). The metropolitan area's median sales price, when adjusted for inflation, is now well above the pre-recession price peak. Prior to the Great Recession, housing prices in Utah had never declined over two consecutive years. Declines were rare and when they did occur they were a single year episode. But, in the wake of the Great Recession housing prices declined for 16 consecutive guarters. The local market had no experience with such a severe and prolonged decline and, of course, no experience with what the price recovery would look like. While the Salt Lake Metropolitan Area's price recovery has been stronger than expected, several metropolitan areas have had much higher rates of growth. The Salt Lake Metropolitan Area ranks 16<sup>th</sup> in housing price increase from 2012 to 2017 out of 177 metropolitan areas. The double digit growth rate for Reno and several California metropolitan areas is unsustainable and bound to moderate in the next few years. In the Salt Lake Metropolitan Area, the five years of strong price growth has brought full price recovery for homeowners without any signs of a housing bubble. Note that the median sales price for the Salt Lake Metropolitan Area at \$315,100 is slightly higher than the median price of \$307,000 in Tables 5-6 due to a different source: National Home Builders Association.

**Metropolitan Areas Ranked by Median Sales Price.** The discussion highlights the comparatively rapid growth of housing prices in the Salt Lake Metropolitan Area. This rapid growth has led to Salt Lake's rise in the ranking of metropolitan areas, in terms of housing value. Ten years ago, the median sales price of a home in

Metropolitan Areas Ranked

by Median Sales Price of Single Family Home\*

(fourth quarter 2017)

Rank	Metropolitan Area	State	Median Sales
1	San Jose-Sunnyvale-Santa Clara	California	\$1,270,000
2	San Francisco-Oakland-Hayward	California	\$920,000
3	Anaheim-Santa Ana-Irvine	California	\$785,000
4	Urban Honolulu	Hawaii	\$760,600
5	San Diego-Carlsbad	California	\$610,000
6	Boulder	Colorado	\$546,400
7	Los Angeles-Long Beach	California	\$541,200
8	Seattle-Tacoma-Bellevue	Washington	\$471,700
9	Nassau County-Suffolk County	New York	\$460,600
10	Boston-Cambridge	Massachusetts	\$448,500
24	Salt Lake	Utah	\$315,100

Source: National Association of Realtors.

the Salt Lake Metropolitan Area was \$229,100, which then gave the metropolitan area a ranking, in terms of home value, of 44<sup>th</sup> out of 156 metropolitan areas. But in just 10 years the Salt Lake Metropolitan Area has moved up 20 spots to 24<sup>th</sup> and is currently in the top 15 percent of metropolitan areas in the National Association of Realtors Survey. In the fourth quarter of 2017 the median sales price of a home in the Salt Lake Metropolitan Area was \$315,100 (see Table 6). San Jose-Sunnyvale-Santa Clara ranks first with a median sales price of \$1,270,000.

### **Comparisons of Rental Rate**

Rental units provide housing for a substantial share of households. In Utah, 30 percent of all households are renters, approximately 285,000 households. Despite the large share of renters, increases in rental rates do not attract nearly as much attention as increases in housing prices. The homeownership market has a broader and more vocal constituency, which includes real estate agents, potential sellers and buyers, mortgage bankers, home builders, and suppliers of building materials. In addition, housing prices generally increase at a faster pace than rental rates and housing prices, by their very nature, carry a much larger, attention grabbing number. For instance, since 2010 the median rental rate in Salt Lake County has increased from \$832 to \$1,031—a 23.9 percent increase—while the median sales price of a home has increased from \$220,000 to \$325,000—an increase of 48 percent. A price jump of \$105,000 in six years makes a great headline.

Despite less press coverage, the level and increase in rental rates are important indicators of housing market conditions that affect the economic well-being of a large number of Utah households. A look at rental rates in large counties in western states shows that Salt Lake County, in terms of rental rate increases, is in the

### Table 7

### **Change in Median Rental Rates for Selected Counties**

Metropolitan Area	Largest County in Metropolitan Area	2010	2016	% Change	AAGR
Denver	Denver	\$811	\$1,223	50.8%	7.1%
San Jose	Santa Clara	\$1,418	\$2,065	45.6%	6.5%
Seattle	King	\$1,036	\$1,418	36.9%	5.4%
Portland	Multnomah	\$839	\$1,144	36.4%	5.3%
Salt Lake	Salt Lake	\$832	\$1,031	23.9%	3.6%
Phoenix	Maricopa	\$884	\$1,042	17.9%	2.8%
Boise	Ada	\$751	\$879	17.0%	2.7%
Los Angeles	Los Angeles	\$1,147	\$1,330	16.0%	2.5%
Las Vegas	Clark	\$986	\$1,031	4.6%	0.7%

Source: U.S. Census Bureau.

### Table 8 Cities Ranked by Average Rental Rate, 2017

Rank	City	Average Monthly Rent
1	Manhattan	\$4,093
2	San Francisco	\$3,440
3	Boston	\$3,232
4	San Mateo	\$3,083
5	Cambridge	\$3,039
6	Jersey City	\$2,859
7	Sunnyvale	\$2,793
8	Santa Clara	\$2,750
9	Brooklyn	\$2,724
10	San Jose	\$2,646
141	Salt Lake City	\$1,108
C	rdi Broporty Management	

Source: Yardi Property Management.

middle of the pack with a 3.6 percent average annual growth rate since 2010. Rental rate increases in Maricopa County (Phoenix), Ada County (Boise), and Clark County (Las Vegas) have actually been slower than in Salt Lake (see Table 7).

A comparison of average rents for 250 cities, from Yardi Property Management, shows Salt Lake City ranks 141<sup>st</sup> with an average rent of \$1,108. Manhattan (New York City) has the highest average rent at \$4,093, nearly four times higher than Salt Lake City (see Table 8).

In summary, rental rates in Utah, both in terms of price and growth, do not rank in the upper quintile of states or metropolitan areas as is the case with home prices. Utah's rental market conditions, in terms of growth and prices, are much more consistent with the typical rates of growth and rent levels found in many local rental markets.

## II. Utah's Housing Shortage: Gap in Housing Units and Households

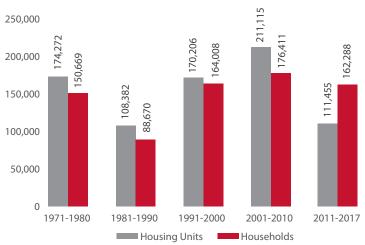
### **Utah's Housing Shortage**

The long-term relationship between the increase in housing units during a decade and the increase in households in Utah has followed a predictable pattern; housing units consistently exceed households. In the four decades, from 1970 to 2010, the increase in housing units exceeded the increase in households by an average of 15 percent (see Figure 1). The gap or surplus in housing units is explained, in large part, by second home units. Second homes add a housing unit but not a household to the housing inventory hence the gap. Since 2011 the housing unit to household relationship has flipped. In the past six years, the number of housing units has increased by 162,300 while the number of housing units has led to a significant reduction in the vacancy rate of housing units for both rental and owner occupied units and created a housing shortage.

In the past few years, the size of the gap or shortage in housing units has declined from the very high levels in 2011 and 2012 (see Figure 2). In these early years of recovery, strong demographic growth had resumed while the homebuilding industry was still recovering from the Great Recession. Hence, the production of housing units lagged and the housing shortages were substantial. This went unnoticed as the vacant units created by the recession provided available housing units for the surplus in households. In other words, the large number of vacant units created by recession acted as a safety value. But, as vacant units were absorbed by the market, signs of a possible housing shortage began to appear as rental vacancy rates declined and the cumulative days on market of listed homes dropped. As economic growth picked up and the number of new housing units continued to fall below the number of new households, albeit at lower levels, the housing shortage became more pronounced. By late 2016 the housing shortage in Utah was widely recognized and accepted by housing practitioners, home buyers, and renters.

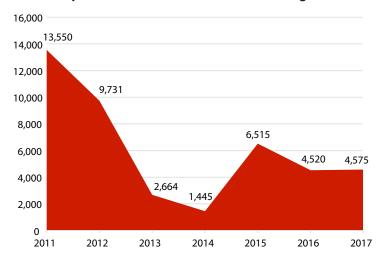
The shortfall in housing units has been persistent and will likely continue. In 2017 the increase in households in Utah was 28,075 while the increase in housing units was 23,000. In order to close the gap the homebuilding industry will need to produce 28,000 units in 2018, an increase of 5,000 units over 2017. An increase of this magnitude is very unlikely. On a year-to-year basis the housing shortage is very likely to persist for at least the next two years and the effects of the cumulative shortage will likely be felt until the next downturn in the business cycle (see Figure 3).

### Figure 1 By Decade: Increase in Housing Units Compared to Increase in Households in Utah



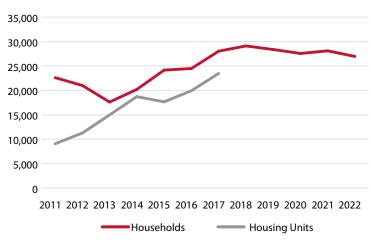
Source: U.S. Census Bureau, Kem Gardner Policy Institute, and Ivory Boyer Construction Database.

### Figure 2 Annual Gap: Difference in Households and Housing Units, Utah



Source: U.S. Census Bureau and Kem C. Gardner Policy Institute.

### Figure 3 Projected Increase in Households in Utah, 2017-2022



Source: Kem Gardner Policy Institute, University of Utah.

### Vacancy Rate and New Apartment Units in Wasatch Front Counties

	Davis County		Davis County Salt Lake County		Utah (	County	Weber County	
Year	Vacancy Rate	New Apartment Units	Vacancy Rate	New Apartment Units	Vacancy Rate	New Apartment Units	Vacancy Rate	New Apartment Units
2005	9.7%	107	6.1%	1,302	8.7%	474	9.2%	6
2006	7.4%	52	4.0%	338	7.1%	560	6.5%	106
2007	5.7%	275	3.2%	898	3.8%	320	6.3%	31
2008	4.6%	73	4.6%	1,521	3.6%	76	7.0%	193
2009	5.9%	108	7.2%	2,442	5.7%	87	9.0%	0
2010	8.0%	4	5.7%	541	7.0%	274	6.9%	36
2011	5.1%	538	5.2%	488	5.5%	579	6.7%	0
2012	5.8%	712	3.8%	538	5.0%	431	6.1%	55
2013	6.6%	251	3.9%	1,605	3.2%	415	7.0%	18
2014	4.6%	394	3.0%	3,326	4.4%	2,318	4.9%	311
2015	4.5%	198	2.7%	2,918	3.6%	1,315	4.0%	384
2016	4.5%	327	2.9%	4,461	3.4%	435	3.5%	235
2017	4.0%	477	2.6%	2,306	4.2%	1,654	2.4%	163

Source: Equimark and CBRE.

### Table 2

### Total Listings and Sales of Single Family Homes in Wasatch Front Counties

(shaded rows = period of record listings)

N	Davis County		Davis County Salt Lake County		Utah C	ounty	Weber County		
Year	Total Listings	Total Sales	Total Listings	Total Sales	Total Listings	Total Sales	Total Listings	Total Sales	
2000	5,094	2,354	19,029	9,875	5,985	2,876	4,993	2,322	
2001	5,194	2,475	20,874	10,403	7,411	2,962	5,217	2,420	
2002	5,193	2,613	21,432	10,606	8,581	3,353	5,303	2,636	
2003	5,463	2,992	21,597	12,093	8,687	3,615	5,653	3,006	
2004	6,202	3,401	21,901	12,819	8,459	4,244	6,010	3,311	
2005	6,386	4,355	21,470	15,254	8,330	5,183	6,079	3,709	
2006	7,056	4,553	23,859	14,878	9,511	5,663	6,949	4,209	
2007	8,796	3,757	29,298	11,368	13,292	4,266	7,337	3,587	
2008	7,322	3,012	23,560	8,517	11,496	3,442	6,366	2,634	
2009	5,892	2,979	18,750	8,905	9,299	4,069	5,400	2,405	
2010	6,221	2,625	17,845	8,570	8,932	3,874	5,420	2,139	
2011	5,207	2,742	15,818	9,458	7,846	4,427	4,597	2,271	
2012	5,064	3,326	14,900	11,067	7,257	4,754	4,339	2,699	
2013	5,803	3,867	16,882	11,768	8,463	5,252	4,705	2,895	
2014	6,006	4,011	17,468	11,636	9,272	5,543	4,748	3,087	
2015	5,749	4,493	17,698	13,421	9,128	6,426	4,758	3,703	
2016	5,789	4,758	17,389	13,569	9,904	6,681	4,832	3,943	
2017	5,484	4,412	17,143	13,039	10,710	6,436	4,729	3,751	
Total	107,921	62,725	356,913	207,246	162,563	83,066	97,435	54,727	

Source: UtahRealEstate.com.

### Median Cumulative Days on Market of Single Family Homes in Wasatch Front Counties

Year	Davis	Salt Lake	Utah	Weber
2000	78	57	62	74
2001	78	59	76	84
2002	79	62	78	77
2003	69	53	79	70
2004	61	42	66	64
2005	51	29	53	55
2006	29	19	31	39
2007	42	37	46	41
2008	76	77	95	73
2009	74	81	94	81
2010	73	70	84	88
2011	92	74	85	96
2012	57	39	57	71
2013	32	24	32	46
2014	44	35	46	54
2015	26	21	29	26
2016	15	14	20	16
2017	16	15	23	17

Source: UtahRealEstate.com

### **Confirmation of a Housing Shortage**

A household entering the housing market has three points of entry: renting, buying an existing home, or buying a new home. All three entry points show market stress and indicate a serious housing shortage.

**Entry Point 1: Rental Market**. The rental vacancy rates for all four Wasatch Front counties are at the lowest levels since 2005. Vacancy rates differed substantially between counties and in some cases were quite volatile prior to the Great Recession. But in the aftermath, rates in all four counties have shown much more uniformity and consistency as they have moved in unison to very low levels. In 2017 the vacancy rates in both Salt Lake and Weber counties were below three percent and in Utah and Davis counties at about four percent (see Table 1). The persistency of rates to move lower despite higher levels of new apartment construction suggests a growing shortage of rental units. In each Wasatch Front county new apartment construction has grown substantially since 2013, at the same time vacancy rates have fallen in each county. Despite high levels of apartment construction demand has outstripped supply.

**Entry Point 2: Existing Home Market**. For the past few years, real estate agents have voiced concerns about the shortage of listings. In each of the four Wasatch Front counties, an all-time high in listings was set in 2007. The number of listings in 2007 in Salt Lake County was a remarkable 70 percent higher than in 2017; 29,298 listings compared to 17,143 listings (see Table 2). The pre-recession years were certainly a period of expanded choice

### Table 4

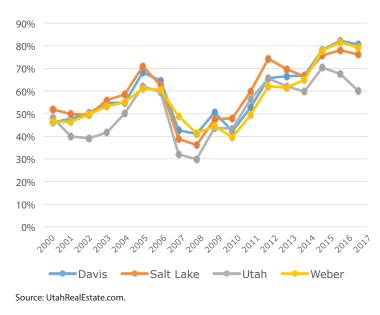
### Single Family Sales as Percent of Listing in Wasatch Front Counties

Year	Davis	Salt Lake	Utah	Weber
2000	46.2%	51.9%	48.1%	46.5%
2001	47.7%	49.8%	40.0%	46.4%
2002	50.3%	49.5%	39.1%	49.7%
2003	54.8%	56.0%	41.6%	53.2%
2004	54.8%	58.5%	50.2%	55.1%
2005	68.2%	71.0%	62.2%	61.0%
2006	64.5%	62.4%	59.5%	60.6%
2007	42.7%	38.8%	32.1%	48.9%
2008	41.1%	36.2%	29.9%	41.4%
2009	50.6%	47.5%	43.8%	44.5%
2010	42.2%	48.0%	43.4%	39.5%
2011	52.7%	59.8%	56.4%	49.4%
2012	65.7%	74.3%	65.5%	62.2%
2013	66.6%	69.7%	62.1%	61.5%
2014	66.8%	66.6%	59.8%	65.0%
2015	78.2%	75.8%	70.4%	77.8%
2016	82.2%	78.0%	67.5%	81.6%
2017	80.5%	76.1%	60.1%	79.3%

Source: UtahRealEstate.com

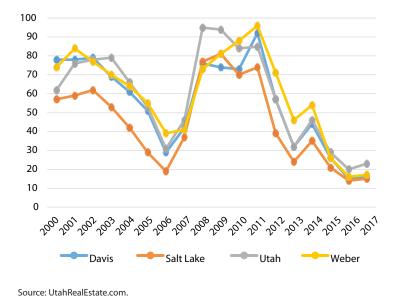
### Figure 4

### Single Family Sales as Percent of Listings in Wasatch Front Counties



for homebuyers. But the abundance of homes for sale didn't add much to total sales. In fact, in the peak year for listings (2007), total sales in each county were below sales in 2017. Sales as a percent of listing in 2007 were well below 50 percent whereas in 2017 sales as a percent of listing were around 80 percent for Davis, Salt Lake, and Utah counties (see Table 4 and Figure 4).

### Figure 5 Cumulative Days on Market of Single Family Homes in Wasatch Front Counties



Any home listed for sale in 2017 had a very high probability of being sold within a few weeks. UtahRealEstate.com, the local multiple listing service, tracks median cumulative days on market. The median days on the market of a listed home, in any of the Wasatch Front counties in 2017, was only two to three weeks (see Table 3 and Figure 5). The high share of listed homes sold and the extremely low number of days on the market are clear indicators of demand outpacing supply and substantiate the presence of a

**Entry Point 3: New Home Market.** The third point of entry is the new home market, which also shows signs of a housing shortage. Home builders have had no trouble selling new homes. The local office of Metrostudy, a national housing consulting firm, tracks the supply of finished unsold new homes in Utah. The data are reported by the number of months supply of finished unsold homes. In the twelve years Metrostudy has compiled the unsold supply data, 2017 had the lowest inventory. The supply of unsold new homes was less than one month in 2017 (see Table 5).

### Table 5

### Number of Months Supply of Finished Vacant Inventory of New Homes in Utah

(fourth quarter)

housing shortage.

Year	<b>Months Supply</b>	Year	<b>Months Supply</b>	Year	<b>Months Supply</b>
2006	1.7	2010	3.3	2014	2.0
2007	3.4	2011	3.7	2015	1.4
2008	3.9	2012	2.2	2016	1.0
2009	3.3	2013	1.6	2017	0.9

Source: Metrostudy Utah Database.

### III. What's Driving-Up Housing Prices in Utah?

The causes for the rapid increase in housing price are divided into two categories. The first includes a number of factors that have a direct impact on the price of an individual home and includes permit and impact fees, development costs, construction costs, and land and labor costs. The second category includes the broad overall market conditions—strong demographic and economic growth — that have created a housing shortage, thus putting upward pressure on prices.

### Permit and Impact Fee Survey

Affordability is being squeezed out of the market due to several bottlenecks associated with the construction process. High land development costs, construction costs, and local fees and zoning ordinances are the primary reasons for the construction bottlenecks. In order to understand how these bottlenecks can be improved upon, it is important to understand how they have changed over time.

To gain perspective on today's permit and impact fees, a survey was completed that included 36 municipalities across the state. Three different housing types were used: a townhome (sizes 750 sf, 1,000 sf, 1,500 sf), a 2-story single-Family (sizes 1,500 sf, 2,000, 3,000), and a rambler single-family (sizes 1,500 sf, 2,000, 3,000). To understand how fees have changed over the last ten years building data was provided by Ivory Homes, Utah's largest home builder. This data included total fees paid, land development costs, and construction costs, allowing for a longitudinal comparison of costs and municipal fees. Changes in permit and impact fees were measured from 2007 to 2017 for 18 municipalities. In order to compare the same fees, costs for new units in 2007 were compared in similar, or nearby, subdivisions for new units in 2017. The same data used for the longitudinal municipal fee comparison was used to understand construction cost changes. Cost changes were measured for a 2,000 square foot single-family home. The same "model" of home was used for the analysis in order to preserve comparability in the comparison. Changes associated with land development were analyzed on a per-lot measure from the same data source.

One major driving force in the mid-2000's housing market was speculative investors. Through their activity, housing prices across the country were overvalued thus pushing affordability out of reach for many working families and would-be home buyers. To understand if investors are having the same impact on today's housing market, the top-26 homebuilders across Utah were surveyed (see Appendix for home builders surveyed and those that responded). The survey targeted new, for sale housing units and included single-family, and townhome/condominium products.

### **Key Findings**

- The 2017 Permit & Impact Fee Survey found that the average fee for a 1,500-square foot townhome was \$11,921, for a 2,000-square foot, 2-story single-family home, the average fee was \$14,172, and for a 2,000-square foot rambler, the average fee was \$14,395.
- A historical impact and permit fee analysis showed the median fee for the 18 cities increased 26 percent between 2007 and 2017.
- The cost of developing raw land has increased by 40 percent between 2007 and 2017. In 2007, the cost of developing an average lot was \$37,000, since then costs have increased by \$15,000. Today, the average lot costs approximately \$52,000 to develop.
- The average cost of building a 2,000 square foot single-family home has increased 33 percent from 2007 to 2017. The average cost of construction in 2007 was \$180,000 per unit, today it is \$240,000.
- While construction activity has rebounded to pre-recession levels, between 2007 and 2016, construction jobs remain about 10 percent below the 2007 peak. The average monthly wage increased by 26 percent from \$3,138 in 2007 to \$3,956 in 2016.
- The 2017 Investor Activity Survey found that investors are playing a major role in Utah's housing market. The most popular product for investor buyers are townhomes and condominiums because of their lower price point.
- Approximately 38 percent plan to hold their investments less than five years while 31 percent plan to hold it between 5 to 10 years.
- Investors are also buying lower priced product, turning would-be first-time owner-occupied property into rentals thus having a negative impact on home ownership rates.

**Current and Historic Fee Analysis.** The Permit & Impact Fee Survey was completed in Fall of 2017. Data was gathered for 36 municipalities across the state. Three different housing types were used: a townhome (sizes 750 sf, 1,000 sf, 1,500 sf), a 2-story single-family (sizes 1,500 sf, 2,000 sf, 3,000 sf), and a rambler single-family (sizes 1,500 sf, 2,000 sf, 3,000 sf).

The type of fees collected varied from city to city. They were estimated based on project size, value, and location (some cities have different rates depending on the project's location). The fees collected included impact fees, plan check fees, building permit fees, and other fees specific to the municipality. The impact fees consisted of water, sewer, storm water, police, fire, and parks fees. Other fees included plumbing, electric, mechanical, grading, and special services district fees.

The survey found that the average fee for a 1,500-square foot townhome was \$11,921 (see Table 1). The lowest fee was \$7,046, and the highest was \$17,397. The average fee for a 2,000-square

### Table 1

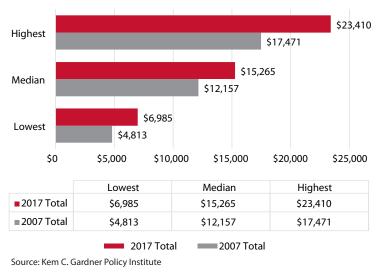
### 2017 Permit & Impact Fee Survey Results

	Townhome (1,500 s.f.)	2 story (2,000 s.f.)	Rambler (2,000 s.f.)
Lowest	\$7,046	\$7,862	\$8,099
Average	\$11,921	\$14,172	\$14,395
Highest	\$17,397	\$20,537	\$22,613

Source: Kem C. Gardner Policy Institute.

### Figure 1

### Permit & Impact Fee Change, 2007 - 2017



foot, 2-story single-family home, was \$14,172. The lowest fee was \$7,862 and the highest was \$20,537. The average fee for a 2,000-square foot, rambler style single-family home, was \$14,395. The lowest fee was \$8,099 and the highest was \$22,613.

Historical permit and impact fee data was available for 18 cities located across the Wasatch Front. Changes in permit and impact fees were measured from 2007 to 2017. In order to compare the same fees, costs for new units in 2007 were compared in similar, or nearby, subdivisions for new units in 2017. Figure 1 shows the lowest, highest, and median city fee change for the 18 cities. The median fee increased by 26 percent in 10 years: from \$12,157 to \$15,265. The cost cause of fee increase is mainly attributed to high population growth which is creating demand for new infrastructure.

One city, which had the highest change in fees between 2007 and 2017, saw an increase of 176 percent in the median fee paid. Primary drivers for this city's costs increase include a 51 percent increase in the parks fee, which rose from \$2,897 in 2007 to \$4,378. The road fee increased by 135 percent in the same time period, rising from \$1,210 in 2007 to \$2,843 in 2017. Fees associated with pressurized irrigation increased by approximately 25 percent, however, it varied based on the lot size and how much permeable area is included. Fees for public safety increased by 12 percent,

### Figure 2 Land Improvement Cost Change, 2007 - 2017 40% Increase 2007-2017



Source: Kem C. Gardner Policy Institute

and a \$750 fee was introduced for storm water which did not exist in 2007. Some cities did not have any changes to their impact fee, however, fees for special service districts increased along with building permit fees, or plan check fees.

Land Improvement and Building Costs. Labor shortages, land costs, and increasing material costs are drivers of increased residential construction costs and have negatively impacted housing affordability. As mentioned earlier, to understand how these costs have changed over the last ten years, data was donated by a local developer. This data included land development costs, construction costs, and municipal fees charged.

When it comes to land, typically the best is not saved for last; rather, the best goes first. Given the limited developable land across the Wasatch Front, the good crop has been picked over in the years past. What is left is harder ground locations that are much more difficult to excavate, or might have major engineering issues such as grading or environmental challenges. These issues, combined with material cost increases, have caused the average raw land development costs to increase by 40 percent between 2007 and 2017. The cost of developing an average lot was \$37,000 in 2007, since then costs have increased by \$15,000 (see Figure 2). Today, the average lot costs approximately \$52,000 to develop. An important note, these figures do not account for the purchase price of the lot.

### Table 2 Change in Construction Jobs & Wages 2007 – 2016

State of Utah	2007	2016	% diff. 2007-2017
Construction Jobs	104,613	92,756	-11%
Construction as % of total state employment	8.4%	6.5%	
Construction of Buildings	22,153	19,133	-14%
Heavy and Civil Engineering Construction	12,398	10,194	-18%
Specialty Trade Contractors	70,062	63,430	-9%
Average Construction Monthly Wage	\$3,138	\$3,956	26%

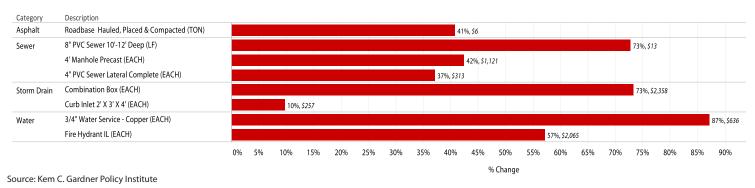
Source: Utah Department of Workforce Services

Some of the price increases in materials associated with land development are shown in Figure 3. Between 2007 and 2017, the cost of asphalt has increased 41 percent per ton, sewer related material like PVC pipe increased 73 percent, and manhole precast rose by 42 percent each. Storm drain combination boxes rose by 73 percent, while copper pipes for water increase 87 percent. The costs of fire hydrants rose by 57 percent.

The average construction of a 2,000-square foot single-family home increased 33 percent from 2007 to 2017. As seen in Figure 4, the average cost of construction in 2007 was \$180,000 per unit. Since 2007, costs have increased by \$60,000 per unit. Today, the average construction cost of a 2,000-square foot single-family home is \$240,000 (see Figure 4). Material costs and labor shortages were the major contributors to this cost increase. According to the National Association of Home Builders, the composite price of framing lumber has increased approximately 60% in the ten-year period.

Other building materials have seen cost increases as well. Drywall has increased approximately 15 percent, while the price of cabinetry has gone up by 42 percent. Roofing saw an increase of nearly 70 percent, while siding has increased 148 percent.

A major bottleneck for Utah's construction industry is the lack of skilled labor. Even though construction volume has recovered well since the last recession, the construction industry has lagged

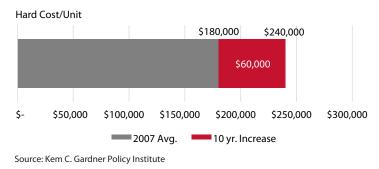


### Figure 3

### Components of Improvements Cost Change, 2007 – 2017

### Figure 4 Hard Cost Change, 2007 - 2017

### 23% Increase 2007-2017



in terms of employment numbers. Many companies that went out of business never recovered, and would-be new talent is choosing a different profession. Additionally, the expansion of the Salt Lake City International Airport, the building up of Salt Lake City downtown, and the office boom of the Silicon Slopes, has homebuilders competing harder than in previous years.

Construction jobs accounted for 8.4 percent of the total jobs in the state, while in 2016 their share fell by almost 2 percent to 6.5 percent (see Table 2). The number of jobs in all subcategories of the construction trade remain below the levels of 2007. The employment in specialty trades is nine percent below 2007 and jobs specific to construction of buildings are 14 percent in 2007. The good news for those employed in the construction industry is that wages have seen a healthy growth. Since 2007, the average monthly wages have increased by 26 percent.

### **Investor Survey**

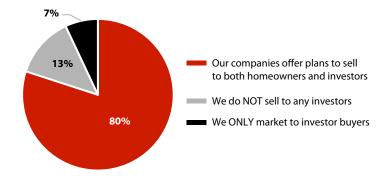
Speculative investors were a major driving force in the mid-2000's housing market. Through their activity, housing prices across the country were overvalued, thus pushing affordability out of reach for many working families and would-be home buyers.

A survey of the top 15 homebuilders in Utah was completed in fall 2017. To understand the investors role in today's market, the survey targeted new, for sale housing units, and included single-family and townhome/condominium products. While a sample size of 15 homebuilders is by no means a large enough pool to complete any significant statistical analysis, it provided a good understanding of the product types attracting investors and how they tend to behave with their properties in the long-term.

Approximately 80 percent of the survey respondents said they provide plans to sell to both individual homeowners and investors (see Figure 5). About 13 percent stated they don't offer plans to sell to any investors, primarily due to restrictions in the HOA convents. One of the respondents only offered properties to investors. These properties were made up of townhomes and condominiums only.

### Figure 5 Current Policy on Investor Buyers

What is your company's current policy to investor buyers?

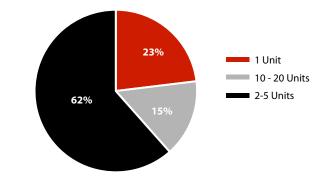


Source: Kem C. Gardner Policy Institute

#### Figure 6

### Average Number of Units Purchased by Investor

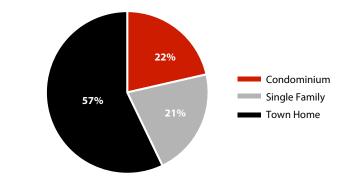
When there is an investor, how many units do they typically buy?



Source: Kem C. Gardner Policy Institute

### Figure 7 Product Type Purchased by Investor

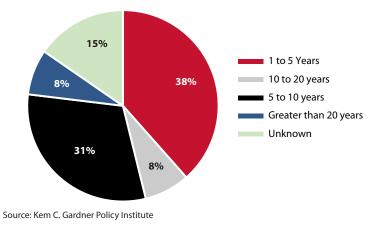
What product is most popular with investors?



Source: Kem C. Gardner Policy Institute

### Figure 8 Expected Hold of Properties

### What is the known length that your investors are planning to hold their properties?



Investors are playing a major role in Utah's housing market. When an investor purchases property, they typically buy two to five units (see Figure 6). About 15 percent of the time they are purchasing a larger volume of units, and 23 percent of the time they are only purchasing one unit. This is an indication that there are both small and large volume investors in the market.

In today's market, townhomes are the most attractive product for investor buyers, followed by condominiums, and single-family, respectively. Approximately 57 percent of the investor purchases are townhomes (see Figure 7). Condominiums account for approximately 22 percent of purchases with single-family experiencing similar volume at 21 percent. A key takeaway from this question is that investors are buying the lowest price product and are likely having an impact on keeping would-be first-time homebuyers out of the market.

Approximately 38 percent of the respondents stated that to the best of their knowledge, the investors are planning to hold the properties between one to five years, while 31 percent stated investors plan to hold their properties between five to 10 years. About 15 percent of respondents didn't know the investors intended hold, while eight percent stated that investors are planning to hold the properties 10 to 20 years, and eight percent also stated that investors plan to hold the properties for more than 20 years. The positive takeaway from these results is that investors are not looking for a quick flip as they did in the mid-2000's. However, it is worrying that nearly 40 percent are planning to sell their property in the next five years.

Other key findings from the survey indicate that from five to 15 percent of sales come from investor buyers. The average price purchased by an investor ranges between \$275,000 to \$375,000 for a single-family home and \$175,000 to \$250,000 for a townhome or condominium. The average asking rent for a single-family unit

ranges from \$1,700 to \$2,200, and from \$1,200 to \$1,600 for a townhome or condominium.

Almost 70 percent of respondents stated they have seen an increase in investor activity in 2017. The remaining 30 percent indicated a decrease, primarily due to there being such high activity in 2016 that 2017 activity has not kept up and that the prices for entry have risen making it harder to compete.

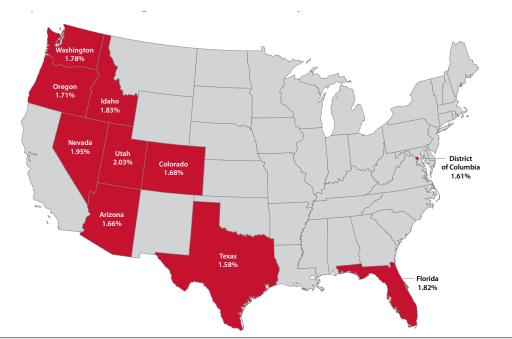
Investors are influencing the market and are creating some problems. They're having a negative impact on homeownership rates because they are buying properties intended for ownership and putting them on the rental market.

With the majority of investor activity seen in townhomes and condominiums, products targeting first time home buyers are taken off the market as well as forcing these buyers to look elsewhere and potentially making it harder for them to purchase a home. Additionally, investors are not getting a discount and are buying at market rate. These units are being listed for rent at the higher rental rate. On the positive side, rental of investor properties does provide some households the opportunity to live in higher opportunity areas (discussed in Section IV) that they otherwise would be excluded from due to their inability to qualify for a mortgage.

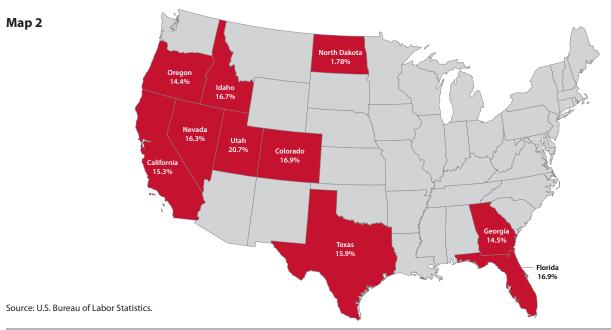
### Additional Observations, Beyond the Fee and Impact Survey, on Factors Driving Up Housing Costs.

**Construction Costs Including Labor Costs.** There are no local construction cost indices; however, the U.S. Census Bureau Price Deflator Index for new single family houses under construction shows that in the past three years construction costs for new homes have increased by 12 percent nationally. This price deflator includes labor costs and reflects the upward pressure on new housing prices created by the shortage of construction workers. Given Utah's rapid economic and demographic growth, it is likely that material and labor costs in Utah are increasing at a more rapid pace than the national average. And like the nation, residential construction costs in Utah are increasing much faster than the cost of most consumer items as measures by the Consumer Price Index (CPI). Over the past three years, the CPI nationally has increased by only 2.8 percent compared to 12.0 percent for the construction cost deflator.<sup>4</sup>

Land Costs. The cost of land for residential development is one of the most difficult to measure. There is no local source for land prices. Residential land is often purchased in large tracts and privately negotiated between the landowner and the developer. Real estate brokers are not involved and the terms of the sale are not disclosed. A number of builders attribute an important share of the increase in housing prices to rising land prices, but exactly how much land prices have increased housing costs has not been determined.



Source: U.S. Census Bureau.



**Topography of Wasatch Front Counties.** The Wasatch Mountains to the east and the Oquirrh Mountains to the west limit the availability of developable land in Salt Lake County. In Davis and Weber counties, the Great Salt Lake on the west and the Wasatch Mountains on the east limit developable land. These topographical features are a cost factor in new residential development, particularly in Salt Lake County. Limited land availability results in higher land and housing costs for new development.

**Local Zoning Ordinances and Nimbyism**. Two related topics should be mentioned that are beyond the scope of this report, but do have long-term impacts on housing prices: zoning ordinances and Nimbyism (not in my back yard). Zoning ordinances determine density, the spatial distribution of housing types (renter versus owner), construction material standards, as well as regulatory requirements that can increase housing prices

and cause development delays. In addition, local opposition (Nimbyism) has driven up costs and constrained supply, particularly for affordable high density rental housing.

**Exceptional Demographic and Economic Growth Boosts Housing Demand.** Since 2010, Utah has ranked first among all states in the rate of demographic and economic growth. From 2010 to 2016 the population of Utah has increased at an annual rate of 2.03 percent, just ahead of Nevada (1.95 percent) and Florida (1.82 percent) (see Map 1). Utah's lead in employment growth rate is even more pronounced. Over the six year period, the number of jobs in Utah increased by 20.7 percent far ahead of the 16.9 percent for the two second ranked states of Colorado and Florida (see Map 2). Rapidly rising housing prices are an inevitable consequence of Utah's high rates of population and job growth. Increased numbers of people and jobs boosts demand for housing.<sup>5</sup>

### IV. Assessing the Threat to Housing Affordability

This section of the study looks at housing affordability as it affects two large income groups: (1) those households with incomes greater than the median income and (2) those households with income less than the median. As we shall see, the threat of housing affordability differs markedly for these two large groups.

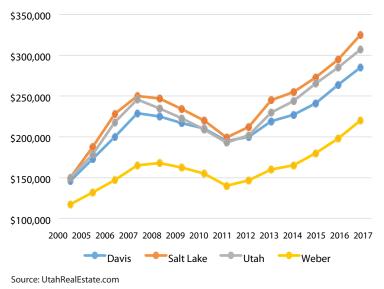
**The Rate of Growth in Housing Prices and Household Income** The rapid rate of housing price increases in Utah and the metropolitan areas was discussed in detail in Section I. While the increase in prices is well established, it is important to compare the growth rate in housing prices to the growth rate in household income.

Among the four Wasatch Front counties, Salt Lake County is the leader in average annual growth rate. In 2000 the median sales price of a single family home in Salt Lake County was \$150,000; by 2017 it had grown to \$325,000 (see Table 1 and Figure 1). Over the seventeen year period the average annual growth rate in the median sales price was 4.7 percent. The strong long-term growth rate has relegated the Great Recession's 20 percent price decline in housing prices (2007-2011) to a distant memory as price increases in recent years have reached double digit levels. Utah County has had the second strongest rate of housing price growth with a 4.3 percent average annual growth rate followed by Davis County at a 4.0 percent growth rate, and last, Weber County at a 3.8 percent growth rate.

The annual growth rate in household income lags behind the growth rate in housing prices. Household income data from the U.S. Census Bureau show that the rates of increase in housing

Figure 1





### Table 1 Median Sales Price of Single Family Home

	Davis	Salt Lake	Utah	Weber
	Davis	Salt Lake	Utan	weber
2000	\$146,000	\$150,000	\$149,910	\$117,372
2005	\$172,900	\$187,500	\$178,500	\$131,840
2006	\$200,000	\$228,000	\$218,000	\$147,000
2007	\$229,000	\$250,000	\$245,900	\$164,900
2008	\$225,000	\$247,000	\$235,000	\$168,000
2009	\$217,000	\$233,947	\$222,600	\$162,500
2010	\$210,000	\$220,000	\$208,825	\$154,900
2011	\$194,800	\$199,000	\$193,000	\$140,000
2012	\$200,000	\$212,000	\$202,000	\$146,500
2013	\$219,000	\$245,000	\$229,900	\$160,000
2014	\$227,000	\$255,000	\$243,750	\$165,000
2015	\$241,000	\$272,900	\$265,500	\$180,000
2016	\$264,000	\$295,000	\$285,000	\$198,000
2017	\$285,000	\$325,000	\$307,000	\$220,000
AAGR	4.0%	4.7%	4.3%	3.8%
Source: UtahRea	IFstate com			

Source: UtahRealEstate.com

### Table 2 Change in Median Households Income

	Davis	Salt Lake	Utah	Weber
2000	\$53,726	\$48,373	\$45,833	\$44,014
2016	\$76,905	\$68,665	\$69,799	\$63,158
AAGR* Income	2.3%	2.2%	2.7%	2.3%
AAGR Prices	4.0%	4.7%	4.3%	3.8%

AAGR = average annual growth rate.

Source: U.S. Census Bureau.

prices have been well ahead of the annual rates of increase in household income (see Table 2). Since 2000, the median sales price of a home in Salt Lake County increased at more than double the rate of household income: 4.7 percent compared to 2.2 percent. In the other three counties, the difference is not as large, but it still significant. This gap in growth rates, over several years, inevitably leads to an erosion of housing affordability.

### Affordability Measured by the Median Multiple

The erosion of housing affordability in the four Wasatch Front counties is clearly measured by what is known as the "Median Multiple." The Median Multiple is derived by dividing the median house price by the median household income. The "Median Multiple" is a widely used method for evaluating housing affordability. The measure is used by the World Bank, the United Nations, and Harvard's Joint Center for Housing Studies to compare housing affordability across countries, states, and metropolitan areas. The Median Multiples are published annually in the *Demographia International Housing Affordability Survey* for nearly 300 housing markets worldwide. In the 2018 survey, Hong Kong ranks as the least affordable housing market with a Median Multiple of 19.4 while Rochester, New York is the most affordable with a Median Multiple of 2.6.

### Change in the Median Multiples for Wasatch Front Counties

County	Median Household Income 2000	Median Sales Price 2000	Median Multiple 2000	Median Household Income 2016	Median Sales Price 2016	Median Multiple 2016
Davis	\$53,726	\$146,000	2.72	\$76,905	\$264,000	3.43
Salt Lake	\$48,373	\$150,000	3.10	\$68,665	\$295,000	4.30
Utah	\$45,833	\$149,910	3.27	\$69,799	\$285,000	4.08
Weber	\$44,014	\$117,372	2.67	\$63,158	\$198,000	3.13

Source: U.S. Census Bureau, and UtahRealEstate.com.

As the comparison of rates of increase for housing prices and household income suggest, the Median Multiple for all four Wasatch Front counties has increased since 2000. For example, the Median Multiple for Salt Lake County has increased from 3.1 in 2000 to 4.3 by 2016: moving from affordable to moderately unaffordable (see Table 3). A Median Multiple of less than 3.0 is considered very affordable while a multiple above 5.0 is considered unaffordable. Not surprisingly Weber County is the most affordable housing market of the four Wasatch Front counties with a Median Multiple of 3.13.

Calculating the Median Multiple by county shows that several of the counties in Utah are very affordable. Ten counties have multiples below 3.0 (see Table 4). At the county level, Emery County is the most affordable housing market in Utah with a 1.6 multiple. The median sales price of a home in Emery County in 2016 was \$82,500. At the other end of the affordability scale, Summit County is the least affordable housing market with a multiple of 9.0, approaching the high multiples of the Bay Area (San Jose 10.3 and San Francisco 9.1). Grand County's high ranking is due to high priced second homes in the county compared to household income which is concentrated in low wage jobs in the hotel, retail, restaurant, and fast food sectors. The county multiples show that housing affordability is not a statewide issue. There are ten counties where housing prices are very affordable given the median income in the county.

### Affordability Measured by the Housing Opportunity Index

Another measure of affordability is the Housing Opportunity Index (HOI) developed by Wells Fargo and the National Association of Home Builders. This index is defined as the share of homes sold in an area that were affordable to a household earning the local median income. An index score of 50 means that half of all homes sold in the area were affordable to the median income household. In this case housing affordability is in equilibrium or balanced. An HOI above 50 signals greater affordability whereas an HOI below 50 indicating less affordability.

As measured by the HOI, housing in Utah's metropolitan areas in the third quarter of 2017 has a fair degree of affordability. The most affordable metropolitan area is Ogden-Clearfield where a

### Table 4 Counties in Utah Ranked by Median Multiple, 2016

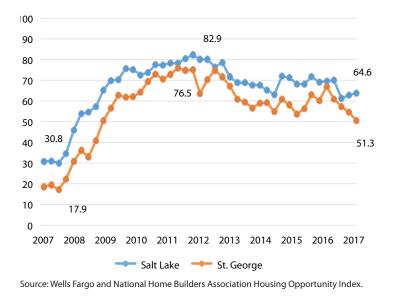
		-	
County	Median Sales Price	Median Household Income	Median Multiple
Summit	\$823,505	\$91,470	9.0
Grand	\$276,000	\$43,529	6.3
Wasatch	\$389,950	\$71,337	5.5
Morgan	\$399,000	\$80,865	4.9
Washington	\$257,000	\$55,056	4.7
Salt Lake	\$295,000	\$68,665	4.3
Utah	\$285,000	\$69,799	4.1
State	\$265,000	\$65,977	4.0
Iron	\$175,000	\$43,799	4.0
Kane	\$200,000	\$50,517	4.0
Cache	\$209,500	\$58,003	3.6
Wayne	\$148,500	\$41,684	3.6
Rich	\$188,500	\$52,569	3.6
Garfield	\$159,000	\$45,221	3.5
Davis	\$264,000	\$76,905	3.4
Juab	\$188,250	\$54,861	3.4
Tooele	\$210,000	\$64,149	3.3
Box Elder	\$178,000	\$55,514	3.2
Weber	\$198,000	\$63,158	3.1
Sanpete	\$153,000	\$48,866	3.1
San Juan	\$119,900	\$41,108	2.9
Sevier	\$140,000	\$48,872	2.9
Beaver	\$129,000	\$48,083	2.7
Piute	\$95,000	\$37,112	2.6
Duchesne	\$145,000	\$61,244	2.4
Uintah	\$160,000	\$67,943	2.4
Carbon	\$112,000	\$47,793	2.3
Millard	\$125,000	\$53,902	2.3
Daggett	\$145,000	\$75,938	1.9
Emery	\$82,500	\$51,276	1.6

Source: Utah RealEstate.com and U.S. Census Bureau.

median income households could afford three out of four homes sold. The HOI is above 50 in all four metropolitan areas. The St. George Metropolitan Area is the least affordable with an HOI of 51.3. In the Salt Lake Metropolitan Area the HOI is 64.6 and in Utah County 59.3.

All the metropolitan areas have followed a similar pattern of affordability over the past 10 year. The years just prior to the Great Recession was a period of very low levels of affordability. In Salt Lake County the HOI index bottomed at 30.8. St. George has the lowest index with a 17.9 HOI in the third quarter of 2007 (see Figure 2). As housing prices and interest rates dropped, affordability increased in all metropolitan areas. Affordability peaked in 2011-2012 with HOI's above 75. The Ogden-Clearfield HOI peaked at 93.7 in the fourth quarter of 2012; nearly all homes sold were affordable to the median income household (see Figure 3).

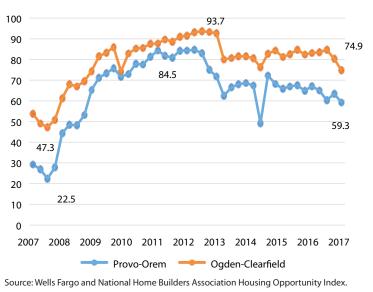
Figure 2 Quarterly Housing Opportunity Indices for Salt Lake and St. George Metropolitan Areas



Using price data from the local multiple listing services (UtahRealEstate.com) Housing Opportunity Indices (HOIs) for each of the four Wasatch Front Counties were calculated. These county calculations provide more detail on affordability. The number of affordable homes sold is calculated as well as the price threshold for an affordable home. The price threshold is a function of assumptions regarding down payment, interest rates, taxes, etc.<sup>6</sup> An additional advantage of the county HOIs is a broader inventory of housing types. The Wells Fargo/NAHB HOI includes only single-family homes. The county HOIs shown in the tables below include condominiums and townhomes. These multifamily types of owner-occupied housing units currently account for about 20 percent of all existing homes sold. Therefore, they are relevant housing types to include in the determination of affordability.

The county HOIs have been calculated for four years (2000, 2005, 2012, and 2016) to show changes in affordability over time and various points of the housing cycle. Notice how sensitive the HOI is to mortgage interest rates. In 2000, the annual mortgage rate was about eight percent. This relatively high mortgage rate acts to reduce the price threshold for affordable homes, which in turn, reduces the number of affordable homes sold thereby pushing down HOI. For all four counties, the HOIs in 2000 were the lowest

### Figure 3 Quarterly Housing Opportunity Indices for Provo-Orem and Ogden-Clearfield Metropolitan Areas



of the four years studied. For example, in Salt Lake County the HOI in 2000 was 34.8. in 2016 with interest rates at 3.65 percent and a price threshold of \$295,526 the HOI was 59.3. If the mortgage rate had been eight percent in 2017 the price threshold for affordable housing would have been \$185,000 and the HOI 17.2 (see Tables 5-8).

The county HOI calculations provide detail on how many singlefamily, condominium, and townhomes were affordable to the median income household. In 2016, in Salt Lake County there were nearly 18,000 homes sales. Of these sales, 10,678 were affordable homes, homes that sold for less than \$295,526. Utah County was surprisingly affordable with an HOI of 77.6. Of the 8,817 homes sold in Utah County in 2016, 6,839 were affordable — priced below \$300,000.

The county HOIs show that affordability has been very favorable for the homeowners and prospective homeowners in the Wasatch Front counties over the past five years. These county level results are consistent with the metropolitan area HOIs as well as the results of the median multiple. Eight consecutive years of mortgage rates below five percent have been extremely beneficial for homeowners, home builders, and the residential real estate industry.

### Table 5 Housing Affordability Index, Davis County

(single family, condominiums, and townhomes)

Year	Median Income	Mortgage Rate	Price Threshold for Affordable Home	Number Affordable Homes Sales	Total Homes Sales	Percent of Sales Affordable (HOI)
2000	\$53,865	8.05%	\$144,426	1,278	2,541	50.3%
2005	\$56,809	5.87%	\$189,691	3,016	4,787	63.0%
2012	\$68,931	3.66%	\$296,684	3,128	3,725	84.0%
2016	\$76,905	3.65%	\$331,026	4,210	5,496	76.6%

Source: UtahRealEstate.com.

### Table 6

### Housing Affordability Index, Salt Lake County

(single family, condominiums, and townhomes)

Year	Median Income	Mortgage Rate	Price Threshold for Affordable Home	Number Affordable Homes Sales	Total Homes Sales	Percent of Sales Affordable (HOI)
2000	\$48,192	8.05%	\$129,474	4,003	11,517	34.8%
2005	\$48,068	5.87%	\$162,592	8,013	18,808	42.6%
2012	\$58,856	3.66%	\$253,342	9,334	13,430	69.5%
2016	\$68,665	3.65%	\$295,526	10,678	17,997	59.3%

Source: UtahRealEstate.com.

### Table 7

### Housing Affordability Index, Utah County

(single family, condominiums, and townhomes)

Year	Median Income	Mortgage Rate	Price Threshold for Affordable Home	Number Affordable Homes Sales	Total Homes Sales	Percent of Sales Affordable (HOI)
2000	\$45,770	8.05%	\$122,726	1,095	3,751	29.2%
2005	\$47,428	5.87%	\$158,368	2,993	6,770	44.2%
2012	\$58,425	3.66%	\$251,498	4,577	5,984	76.5%
2016	\$69,799	3.65%	\$300,368	6,839	8,817	77.6%

Source: UtahRealEstate.com.

### Table 8

### Housing Affordability Index, Weber County

(single family, condominiums, and townhomes)

Year	Median Income	Mortgage Rate	Price Threshold for Affordable Home	Number Affordable Homes Sales	Total Homes Sales	Percent of Sales Affordable (HOI)
2000	\$44,111	8.05%	\$118,263	1,405	2,594	54.2%
2005	\$49,107	5.87%	\$164,105	3,008	4,243	70.9%
2012	\$54,045	3.66%	\$232,579	2,578	3,084	83.6%
2016	\$63,158	3.65%	\$271,789	3,703	4,694	78.9%

Source: UtahRealEstate.com.

### Affordability by Occupation: The Case of Public School Teachers

Discussions of housing affordability often make reference to the difficulty teachers, public safety employees, and nurses have in qualifying for homeownership. It is implied that the salaries of these essential occupations are simply too low to qualify for homeownership. Generally, the analysis of housing affordability and income by occupation uses the average income for a specific occupation. In the case of teachers, public safety employees, and nurses, employment patterns can lead to a relatively low average income for the profession. For instance, take the example of public school teachers. The high teacher turnover rate in Utah — 56 percent of new teachers leave the profession within eight years — results in a disproportionate number of young teachers at the low-end of the salary schedule in the profession, hence the relatively low average income.<sup>7</sup>

The analysis below is more comprehensive than the typical treatment of teachers' salaries and housing affordability. The analysis examines housing affordability using three criteria for income: (1) the salary of a first year teacher, (2) the salary of a teacher with 10 years of experience, and (3) the total income of a teacher with 10 years of experience and partner or spouse working three quarters time in retail.

**First Year Teacher.** Using the salaries of teachers in eight large school districts, the upper thresholds of housing affordability were determined. For example, the salary for a first year teacher in the Salt Lake City School District is \$43,887. This salary is sufficient to finance a mortgage priced at or below \$177,766 (see Table 9). The number of affordable dwelling units (≤\$177,766) sold in Salt Lake County are shown in Table 10. In 2017, 342 single-family homes were priced at or below \$177,766 and 1,055 condominiums, townhomes, and twin homes were affordable to the first year teacher. Overall only 7.8 percent of all dwelling units sold in Salt Lake County in 2017 were affordable to the first year teacher. Affordability is considerably enhanced for teachers

### Table 9

### Salary of First Year Public School Teacher and Affordable Dwelling Unit Price, 2017

School District	First Year Teacher Salary	Affordable Dwelling Unit Price
Box Elder	\$37,653	≤\$152,558
Cache	\$40,735	≤\$164,998
Davis	\$39,543	≤\$160,149
Juab	\$39,079	≤\$158,291
Salt Lake City	\$43,887	≤\$177,766
Tooele	\$37,000	≤\$149,868
Nebo (Utah Co.)	\$34,637	≤\$140,298
Ogden	\$40,719	≤\$165,015

Source: UtahRealEstate.com and selected School Districts.

### Table 10 Number of Dwelling Units Affordable to First Year Public School Teacher, 2017

Colored District		Sales of Affordable Units	Affordable Units as Percent of Total Sales			
School District	Single Family Sales	Multifamily Sales	Total Affordable Sales	Single Family	Multifamily	Total
Box Elder	128	32	160	18.1%	76.2%	21.4%
Cache	177	141	318	13.9%	61.0%	21.1%
Davis	109	143	252	2.4%	18.2%	4.8%
Juab	21	1	22	22.1%	100.0%	22.9%
Salt Lake	342	1,055	1,397	2.6%	23.3%	7.8%
Tooele	94	26	120	7.4%	29.5%	8.8%
Nebo (Utah Co.)	21	100	121	0.3%	3.9%	1.3%
Ogden	709	458	1167	18.5%	60.0%	25.4%
Total	1,601	1,956	3,557	5.1%	21.8%	8.8%

Source: UtahRealEstate.com and Selected School Districts.

#### Table 11

### Salary of Public School Teacher with Ten Years of Experience and Affordable Dwelling Unit Price, 2017

School District	Salary of Teacher with Ten Years of Experience	Affordable Dwelling Unit Price
Box Elder	\$50,271	≤\$203,622
Cache	\$49,377	≤\$200,002
Davis	\$47,418	≤\$192,068
Juab	\$49,956	≤\$202,346
Salt Lake	\$61,465	≤\$248,953
Tooele	\$47,416	≤\$192,059
Nebo (Utah Co.)	\$49,270	≤\$199,569
Ogden	\$48,594	≤\$196,875

Source: Survey of Selected School Districts and Utah RealEstate.com

in the Ogden, Box Elder, Cache, and Juab school districts. In the counties where these districts are located, about 20 percent of dwelling units sold in 2017 were affordable, including a fair share of single-family homes.

**Teacher with 10 Years of Experience.** The salary of a teacher with 10 years of experience expands housing choices. For a teacher with 10 years of experience in the Salt Lake City School District, the upper price threshold for a home increases from \$177,766 to \$248,953 and the share of homes sold that are affordable increases from 7.8 percent to 33.1 percent (see Tables 11-12).

**Teacher with 10 Years of Experience plus Spouse Income.** A 10 year teacher's income plus additional income from a partner or spouse working three quarters time would provide a significant boost to housing choice. Fifty to 80 percent of all dwelling units sold in the respective counties would be affordable to this household (see Tables 13-14).

It's clear from the income and housing sales data that a household with a single income—a first year teacher's salary—would have limited affordable housing choices and be hard pressed to finance a homeownership, particularly in Salt Lake, Davis, and Utah Counties. For the teacher with 10 years of experience there are more housing choices but they are still rather limited. In summary, it takes several years of teaching experience and a

### Table 12

#### Number of Dwelling Units Affordable to Teacher with Ten Years of Experience, 2017

School District		Sales of Affordable Unit	Affordable Units as Percent of Total Sales			
School District	Single Family Sales	Multifamily Sales	Total Affordable Sales	Single Family	Multifamily	Total
Box Elder	354	38	392	50.1%	90.5%	52.4%
Cache	441	224	665	34.6%	97.0%	44.2%
Davis	390	293	683	8.6%	37.3%	12.9%
Juab	40	1	41	42.1%	100.0%	42.7%
Salt Lake	3,071	2,839	5,910	23.0%	62.7%	33.1%
Tooele	306	67	373	24.1%	76.1%	27.4%
Nebo (Utah Co.)	334	1,180	1,514	5.1%	46.3%	16.5%
Ogden	1,407	605	2,012	36.6%	79.3%	43.7%
Total	6,343	5,247	11,590	20.0%	58.4%	28.5%

Source: UtahRealEstate.com and Selected School Districts.

### Total Income of Public School Teacher with 10 Years of Experience and Partner in Retail (Part-Time) and Affordable Dwelling Unit Price, 2017

School District	Salary of Teacher with Ten Years of Experience	Salary of Partner 75 Percent Time in Retail Occupation	Total Income	Affordable Dwelling Unit Price
Box Elder	\$50,271	\$18,297	\$68,568	≤\$277,545
Cache	\$49,377	\$17,631	\$67,008	≤\$271,419
Davis	\$47,418	\$20,241	\$67,659	≤\$274,054
Juab	\$49,956	\$14,130	\$64,086	≤\$259,575
Salt Lake	\$61,465	\$27,378	\$88,843	≤\$359,849
Tooele	\$47,416	\$17,874	\$65,290	≤\$264,271
Nebo (Utah Co.)	\$49,270	\$22,005	\$71,275	≤\$288,574
Ogden	\$48,594	\$20,610	\$69,204	≤\$280,200

Source: UtahRealEstate.com and Selected School Districts.

#### Table 14

### Number of Dwelling Units Affordable to Teacher with 10 Years of Experience and Partner in Retail (Part-Time), 2017

Colored Director		Sales of Affordable Unit	Affordable Units as Percent of Total Sales			
School District	Single Family Sales	Multifamily Sales	Total Affordable Sales	Single Family	Multifamily	Total
Box Elder	558	42	600	79.0%	100.0%	80.2%
Cache	940	231	1,171	73.8%	100.0%	77.9%
Davis	2,006	685	2,691	44.5%	87.3%	50.8%
Juab	63	1	64	66.3%	100.0%	66.7%
Salt Lake	8,147	4,250	12,397	61.0%	93.8%	69.3%
Tooele	841	88	929	66.1%	100.0%	68.3%
Nebo (Utah Co.)	2,792	2,385	5,177	42.2%	93.6%	56.5%
Ogden	2,779	727	3,506	72.4%	95.3%	76.2%
Total	18,126	8,409	26,535	57.3%	93.6%	65.3%

Source: UtahRealEstate.com and Selected School Districts.

### Table 15

### Affordable Housing Thresholds for Median Income Household

	2005	2012	2016
Davis	\$189,691	\$296,684	\$331,026
Salt Lake	\$162,592	\$253,342	\$295,526
Utah	\$158,368	\$251,498	\$300,368
Washington	\$165,220	\$211,208	\$266,343
Weber	\$164,105	\$232,570	\$271,789

Source: U.S. Census Bureau and Kem Gardner Policy Institute.

second income to expand affordability to more than half of the single-family homes sold and nearly all of the condominiums, townhomes, and twin homes. This would hold true for most public safety employees, as well as most nurses.

#### Affordability of New Single Family Homes

So far, we have not distinguished between the affordability of new and existing homes. To get a more complete picture of affordability and homeownership it is important to include new home activity and prices. The data in this section were provided by the local office of Metrostudy, a Hanley Wood company that maintains a database on new housing construction in Utah. The affordable housing thresholds for a median income household sets the upper bound for affordability. Thresholds have been calculated for three separate years for five counties (see Table 15). In Davis County, for example, the number of new homes that sold in 2005 below the threshold price of \$189,691 was estimated at 653 homes out of 2,945 new homes sold. The Metrostudy data includes only detached single -family homes. In 2005, 22 percent of the new homes in Davis County were affordable to the median income household. In 2012, at the bottom of the Great Recession, 47 percent of the new homes sold were affordable, that is, they were priced below \$296,684. By 2016, after several years of strong price increases, the share of affordable new homes dropped to 36 percent.

To provide a better sense of where the affordable new homes were located in a specific year the county data are presented at the zip code level (see Table 16). The data by zip code show, for Davis County, in 2005 the areas were affordable new homes were available were Clinton and North Salt Lake. There were 192 affordable new homes sold in zip code 84015 (Clinton) and 186 in 84054 (North Salt Lake). These two cities accounted for nearly 60 percent of the affordable new homes in the county in 2005. In 2012 no zip code had a significant share of new affordable homes, but by 2016 affordability had shifted to Syracuse with a 30 percent share of affordable new homes. The 2016 data shows that affordability of new homes is quite widely dispersed in Davis County. Most zip codes have a fair number of affordable new homes.

In contrast to Davis County, the location of affordable new homes in Salt Lake County has become more concentrated from 2005 to 2016. In 2005, two zip codes 84081 (West Jordan) and 84096 (Herriman) accounted for 30 percent of the affordable new homes. By 2016 three zip codes 84065 (Bluffdale and Riverton), 84095 (South Jordan), and 84096 (Herriman) had a 70 percent share (see Table 17). Many of the zip codes in the county, while

not locations of large numbers of affordable new homes, have nevertheless seen declines in the level of affordable new home construction. While there has been a greater concentration in Salt Lake County, overall the number of affordable new homes is substantial. Thirty percent of new homes were priced below the affordability threshold of \$295,526.

Utah County has seen a shift in affordable new homes by Zip Code in Eagle Mountain, Lehi, Pleasant Grove, and Spanish Fork to zip codes in Saratoga Springs, Vineyard, and Eagle Mountain (see Table 18). Saratoga Springs and Eagle Mountain had nearly a 40 percent share of the affordable activity. Countywide there were nearly 3,000 new homes closed in 2016 and 1,046 (34.9 percent) were priced below \$300,368.

### Table 16

#### Share of Affordable New Single Family Homes in Davis County

	2005	5	2012		2016		Channes in Affendable	
Zip Code	Affordable New Homes	Total New Homes	Affordable New Homes	Total New Homes	Affordable New Homes	Total New Homes	Change in Affordable New Homes 2005-2016	City
84010	36	108	1	13	2	12	-34	Bountiful
84014	10	80	61	83	12	39	2	Centerville
84015	192	700	53	74	58	121	-134	Clinton/Clearfield
84025	37	203	46	122	31	143	-7	Farmington
84037	42	479	37	105	28	117	-14	Kaysville
84040	4	61	9	45	10	55	6	Layton
84041	48	288	53	140	36	163	-11	Layton
84054	186	421	52	89	64	98	-122	North Salt Lake
84056	0	0	22	38	15	20	15	Hill Air Force Base
84075	61	400	61	130	129	300	68	Syracuse
84087	30	140	35	71	1	7	-30	West Bountiful
84315	0	0	2	4	4	6	4	Syracuse (partial)
Total	646	2,886	433	920	389	1,082	-230	
% Share	22.4%		47.0%		36.0%			

Source: Metrostudy.

### Table 17Number of Affordable News Homes in Salt Lake County by Zip Code

	2005		2012		2016		Changes in Affendeble	
Zip Code	Affordable New Homes	Total New Homes	Affordable New Homes	Total New Homes	Affordable New Homes	Total New Homes	Change in Affordable New Homes 2005-2016	City
84020	87	708	61	175	39	136	-48	Draper
84043	0	0	0	1	0	0	0	Lehi
84044	46	160	26	30	5	25	-42	Magna
84047	18	149	63	83	24	50	5	Midvale
84065	39	347	27	111	155	432	116	Riverton
84070	13	63	31	106	2	17	-11	Sandy
84081	136	894	36	121	56	292	-80	West Jordan
84084	50	208	5	30	11	20	-39	West Jordan
84088	14	102	37	79	7	67	-7	West Jordan
84092	2	77	1	15	2	11	0	Sandy
84093	0	13	0	2	0	5	0	Sandy
84094	2	30	0	1	0	0	-2	Sandy
84095	75	991	178	544	209	795	134	South Jordan
84096	141	1452	143	402	269	706	127	Herriman
84101	5	55	14	54	4	24	-1	Salt Lake City
84102	2	6	0	13	0	0	-2	Salt Lake City
84103	12	42	0	3	0	0	-12	Salt Lake City
84104	7	1,3	2	2	0	0	-7	Salt Lake City
84105	2	11	1	5	0	6	-2	Salt Lake City
84106	13	110	3	7	1	2	-12	Millcreek
84107	15	67	2	29	2	7	-13	Murray
84108	5	56	2	3	2	8	-3	Salt Lake City
84109	0	21	0	4	1	20	1	Millcreek
84111	8	37	10	45	1	15	-7	Salt Lake
84115	3	12	47	89	0	0	-3	Millcreek
84116	18	44	3	3	0	1	-18	Salt Lake City
84117	3	47	18	31	0	16	-3	Holladay
84118	26	116	32	50	17	31	-9	Kearns/West Valle
84119	57	114	35	66	44	90	-13	South Salt Lake
84120	11	95	14	33	25	66	14	West Valley
84121	3	74	1	13	1	39	-2	Cottonwood Hts
84123	2	37	3	7	1	17	-1	Taylorsville
84124	5	56	0	1	3	32	-2	Holladay
84128	51	250	47	71	7	31	-44	West Valley City
84129	0	2	1	2	1	26	1	Taylorsville
Total	874	6,459	846	2,231	888	2,990		-
% Share	13.5%		37.8%		29.7%			

Source: Metrostudy.

### Table 18 Number of Affordable New Homes in Utah County by Zip Code

	2005		2012	2	201	6			
Zip Code	Affordable New Homes	Total New Homes	Affordable New Homes	Total New Homes	Affordable New Homes	Total New Homes	Change in Affordable New Homes 2005-2016	City	
84003	39	354	45	116	76	260	37	American Fork/Highland	
84004	7	112	0	8	1	6	-6	Alpine	
84005	116	460	58	124	211	458	95	Eagle Mountain	
84013	3	83	7	17	9	18	6	Cedar Fort/Fairfield	
84020	3	107	2	19	1	8	-2	Draper	
84042	5	30	2	8	1	12	-4	Lindon	
84043	152	1201	269	592	64	472	-88	Lehi	
84045	105	560	106	263	190	527	85	Saratoga Springs	
84057	6	89	8	17	51	84	45	Orem	
84058	5	42	77	170	114	325	109	Orem/Vineyard/Pleasant Grove	
84062	131	724	13	42	45	109	-86	Cedar Hills	
84097	2	77	0	2	0	5	-2	Orem	
84601	4	76	11	16	6	43	2	Provo	
84604	4	126	19	35	1	12	-3	Provo	
84606	32	249	3	12	13	37	-19	Provo	
84651	25	149	30	52	25	85	0	Payson/Elk Ridge	
84653	13	78	4	21	28	90	15	Woodland Hills	
84655	7	58	19	22	69	123	62	Santaquin	
84660	100	398	76	117	58	171	-42	Spanish Fork	
84663	98	272	67	104	73	102	-25	Springville	
84664	4	26	11	49	9	42	5	Mapleton	
Total	869	5,404	830	1818	1,046	2,995	177		
	16.1%		45.7%		34.9%				

Source: Metrostudy.

### Table 19

### Number of Affordable New Homes in Weber County by Zip Code

	2005		2012		2016		Change in Affordable		
Zip Code	Affordable New Homes	Total New Homes	Affordable New Homes	Total New Homes	Affordable New Homes	Total New Homes	New Homes 2005-2016	City	
84067	8	76	29	41	9	31	1	Roy	
84310	14	85	1	17	1	10	-13	Eden	
84315	8	129	13	59	1	25	-7	Hooper	
84317	7	111	0	12	1	6	-6	Huntsville/Ogden	
84401	62	209	27	55	79	167	17	West Haven	
84403	4	48	2	5	0	6	-4	Ogden/So. Ogden	
84404	87	296	47	88	35	168	-52	Plain City/Farr West	
84405	33	121	3	15	7	15	-25	Riverdale	
84414	83	268	63	122	11	77	-72	Pleasant View	
Total	305	1,348	185	414	144 510 -161				
	22.6%		44.7%		28.3%				

Source: Metrostudy.

Weber County, at least in 2016, had a surprisingly small share of affordable new homes. Only 144 homes, or 28 percent, of the 510 new homes sold in the county were priced below the affordable threshold of \$271,789 (see Table 19). The rather low share in Weber County may be partly explained by the low median income in the county, which pushes down the affordability threshold. As the threshold is adjusted downward, it reduces the number of afford-

able homes. Cities where the largest share of affordable homes were built in 2016 were West Haven, Plain City, and Farr West.

All four counties exhibit a similar pattern of affordable new home development. Prior to the Great Recession, about less than one in five new homes were affordable to the median income household. Affordability was hurt by the six percent mortgage rate, which at the time was relatively low. But in the wake of the Great Recession, and falling interest rates, affordability increased. By 2012, at least four out every ten new homes built in the Wasatch Front counties were priced below the affordability threshold. Mortgage interest rates at near 3.5 percent provided prospective homeowners with a tremendous opportunity for affordable homeownership. Although mortgage rates remained below four percent in 2016, new home prices have increased substantially over the 2012-2016 period due to a number of factors discussed earlier in this study. Consequently the share of affordable new homes in 2016 declined to around one in three new homes.

The Metrostudy data show that there are new home opportunities for the median income household. While the affordability of new homes is higher than expected — one in three homes — it is well below the 60 percent HOI for the existing home market. Both the new and existing housing data are unequivocal—there is a relatively high degree of housing affordability in the Utah housing market despite the rapid rise in prices since 2012

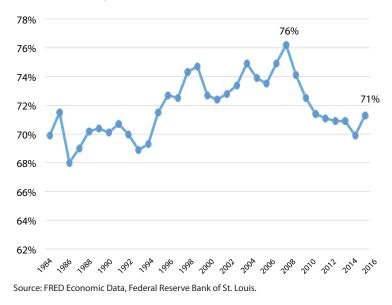
#### Affordability and Homeownership

Utahns have always been inclined toward homeownership. No other state has a history of homeownership comparable to Utah. Since 1900, Utah is the only state where the homeownership rate has never fallen below 60 percent of households. At the peak of the single family housing boom, just prior to the Great Recession, the rate hit a high of 76 percent (see Figure 4). But over the following seven years ownership rates declined steadily dropping to 70 percent in 2015. The rate continued to decline even in years of very low interest rates, strong economic growth, and favorable affordability. Finally in 2016, there was a slight uptick in the homeownership rate to 71 percent. But the persistent decline from 2009 to 2015 caused many observers to wonder if housing preferences were shifting from homeownership to renting. Most of the attention focused on the millennial generation, the 25-34 year age cohort, a prime home buying age group.

Nationally the homeownership rate for the 25-34 year age group has dropped from 45.6 percent in 2000 to 37 percent in 2016. Every state has experienced a decline and for some states it is clearly a result of lack of affordability. In California, only one in four households in the 25-34 age group were homeowners. Utah has fared much better. The rate has dropped from 56.3 percent in 2000 to 50.4 percent (see Table 20). Half of the millennial households in Utah are homeowners. Only two states have higher rates of homeownership for millennials than Utah: Iowa (53.2 percent), and Minnesota (52.1percent).

The comparatively high homeownership rate for Utah's millennial generation suggests that affordability hasn't been a serious impediment to ownership. Although for some households, the burden of student debt has prevented homeownership. This debt burden is likely responsible for some of the decline in homeownership for the group as well as a slight shift in preferences toward apartment living.

### Figure 4 Homeownership Rate in Utah



#### Table 20

### Homeowners as Percent of Households by Age in Western States, 25-34 Years

	2000	2016
Arizona	48.0%	36.7%
California	31.8%	25.1%
Colorado	48.2%	40.0%
Idaho	55.6%	45.9%
Nevada	44.1%	33.9%
Oregon	40.5%	33.4%
Utah	56.3%	50.4%
Washington	42.1%	34.6%
US	45.6%	37.0%

Source: U.S. Census Bureau Decennial 2000 Census and American Community Survey, 2016.

**The Affordability Paradox.** There seems to be a paradox in the housing market: high prices, but a high degree of affordability. This is a counterintuitive condition that flies in the face of most anecdotes about the market. The last time buyers reported "steals" or unbelievably low prices was during the foreclosure and short sale days some years ago. Now it is common for buyers to face bidding wars for recently listed properties. And the winning bid is often well above the listed price. In such a frenzied environment, due in large part to demand sparked by Utah's high rates of net inmigration, buyers become frustrated. The number of listing remains stagnant while the number of buyers grows. This imbalance allows sellers to push-up prices on lower quality of listing. These conditions are particularly prevalent in highly desirable submarkets like Salt Lake City's Avenues or Sugarhouse areas.

For many prospective homebuyers there's a disconnect between their negative experience in the housing market and the

### Table 21Change in Rental Rates in Wasatch Front Counties

	Salt Lake County		Davis County		Utah County		Weber County	
Year	Overall	Two Bedroom Two Bath	Overall	Two Bedroom Two Bath	Overall	Two Bedroom Two Bath	Overall	Two Bedroom Two Bath
2005	\$641	\$774	\$606	\$679	\$640	\$749	\$578	\$693
2010	\$755	\$885	\$711	\$816	\$716	\$837	\$640	\$770
2011	\$791	\$910	\$701	\$875	\$753	\$829	\$655	\$766
2012	\$810	\$948	\$720	\$830	\$788	\$889	\$684	\$774
2013	\$850	\$970	\$756	\$868	\$807	\$953	\$678	\$820
2014	\$892	\$1,017	\$796	\$827	\$868	\$959	\$698	\$826
2015	\$955	\$1,105	\$864	\$939	\$957	\$1,071	\$754	\$898
2016	\$1,023	\$1,193	\$933	\$1,051	\$930	\$1,076	\$810	\$970
2017	\$965	\$1080	\$795	\$951	\$1,038	\$1,195	\$1,093	\$1,183
2005-2017 AAGR	4.1%	3.7%	4.0%	3.9%	4.6%	3.9%	2.7%	2.7%
2012-2017 AAGR	5.1%	4.7%	6.0%	5.4%	6.8%	5.9%	3.1%	4.2%

Note: AAGR = average annual growth rate.

Source: Equimark, ARA, and Cushman & Wakefield, Commerce Real Estate Solutions.

favorable affordability data. The measures of affordability—the median multiple and housing opportunity index—ignore FICO scores, student debt, job history, and other factors that a financial institution considers for homeowner credit worthiness. While the affordability measures give us valuable information on the relationship between incomes and housing prices they don't capture the complexities of the loan approval process.

#### **Affordability of Rental Housing**

It takes \$47,000 in income to rent the typical two bedroom apartment unit in Salt Lake and Utah counties. This assumes 30 percent of the household income goes to rent. In 2017, the median rent for the typical two bedroom apartment was \$1,195 in Salt Lake County and \$1,183 in Utah County (see Table 21).

High rents exclude many households from the housing market. For instance, a minimum wage worker would need to work 125 hours a week to afford the typical two bedroom unit while a \$10 an hour worker would need to work 91 hours a week. Since 2005, rental rates have increased at about four percent annually and in recent years have accelerated to as much as six percent. The income of renters has not kept pace with rising rents (see Table 22). This imbalance has made rental housing less affordable and increased the housing cost burden of renters.

As rental rates rise the number of affordable rental units shrinks and affordability declines. The decline in affordability in Utah's two largest metropolitan areas, Salt Lake and Provo-Orem, is shown in Figures 5-6 and Tables 23-24. Rental rates in the tables and figures are in 2015 dollars. There has been a substantial decline in the number of rental units priced below \$1,000. In 2005, 76 percent of the rental units in the Salt Lake Metropolitan Area were priced below \$1,000, by 2015 that share had dropped to 55 percent; 10,000 fewer units. In the Provo-Orem Metropolitan Area, the share of rental units priced below \$1,000 dropped from 64 percent in 2005 to 53 percent in 2015. Although the number of units priced below \$1,000 has remained nearly the same at 26,000, the rental market has grown by 10,000, hence the decline in percent share of affordable units.

The decline in affordable units has occurred despite the development of about 900 units annually through Low Income Housing Tax Credits (LIHTC). The LIHTC program is one of a few programs providing rental assistance to very low and extremely low income households. This program is a lifeline of affordability for several thousand Utah households.

**Low Income Housing Tax Credits.** Established by the Tax Reform Act of 1986, the LIHTC program is the most important and effective resource for the production of new, affordable rental units in Utah. The maximum rent that can be charged is based on the Area (county) Median Income (AMI). Tax credit units target very low income households between 30 percent and 60 percent AMI. The rental rates for a tax credit units are from 10 percent to 40 percent below typical market rate rents.

The first tax credit projects developed in Utah were placed in service in 1987. Since then, 458 LIHTC projects were developed

#### Table 22

### Change in Median Income of Renters by County

	Salt Lake	Davis	Utah	Weber
2005	\$29,620	\$34,332	\$28,642	\$27,090
2012	\$35,424	\$36,874	\$33,968	\$32,524
2016	\$44,523	\$45,942	\$40,919	\$34,991
2005-16 AAGR	3.8%	2.7%	3.3%	2.4%
2012-16 AAGR	5.88%	5.65%	4.76%	1.84%

Source: U.S. Census Bureau.

### Table 23 Percent Share of Rental Units by Rent in Salt Lake Metropolitan Area

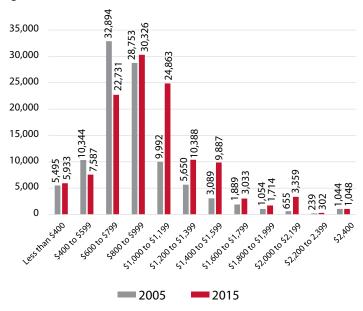
(gross rent in 2017 dollars)

	2005	2015
Less than \$400	5.4%	4.9%
\$400 to \$599	10.2%	6.3%
\$600 to \$799	32.5%	18.8%
\$800 to \$999	28.4%	25.0%
\$1,000 to \$\$1,199	9.9%	20.5%
\$1,200 to \$1,399	5.6%	8.5%
\$1,400 to \$1,599	3.1%	8.2%
\$1,600 to \$1,799	1.9%	2.5%
\$1,800 to \$1,999	1.0%	1.4%
\$2,000 to \$2,199	0.6%	2.8%
\$2,200 to \$2,399	0.2%	0.2%
\$2,400 or more	1.0%	0.9%
Total	100.0%	100.0%
Median Rent	\$812	\$960

Source: JCHS, Harvard, American Community Survey.

### Figure 5 Number of Rental Units by Rent Salt Lake Metropolitan Area

(gross rent in 2015 dollars)



Note: Gross rent includes utilities.

Source: American Community Survey and Joint Center for Housing Studies, Harvard University.

with nearly 25,000 affordable rental units (see Table 25 and Figure 7). Over the 30-year period (1987-2017), building permits have been issued for 76,900 rental units. Thirty-two percent of all new apartment units built since 1987 in Utah have been tax credit units. The 25,000 tax credit units represent about nine percent of all rental units in Utah.

### Table 24

### Percent Share of Rental Units by Rent in Provo-Orem Metropolitan Area

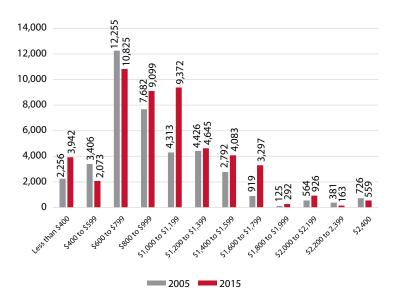
(gross rent in 2015 dollars)

	2005	2015
Less than \$400	5.7%	8.0%
\$400 to \$599	8.5%	4.2%
\$600 to \$799	30.8%	22.0%
\$800 to \$999	19.3%	18.5%
\$1,000 to \$\$1,199	10.8%	19.0%
\$1,200 to \$1,399	11.1%	9.4%
\$1,400 to \$1,599	7.0%	8.3%
\$1,600 to \$1,799	2.3%	6.7%w
\$1,800 to \$1,999	0.3%	0.6%
\$2,000 to \$2,199	1.4%	1.9%
\$2,200 to \$2,399	1.0%	0.3%
\$2,400 or more	1.8%	1.1%
Total	100.0%	100.0%
Median Rent	\$852	\$971

Note: Gross rent includes utilities.

Source: JCHS, Harvard, American Community Survey.

### Figure 6 Number of Rental Units by Rent Provo-Orem Metropolitan Area (gross rent in 2015 dollars)



Note: Gross rent includes utilities. Source: American Community Survey and Joint Center for Housing Studies,

Source: American Community Survey and Joint Center for Housing Studies, Harvard University.

**Section 8 Housing Choice Voucher Program.** Rather than provide incentives for the development of new affordable rental housing units, as is the case with the LIHTC program, HUD Section 8 vouchers provide direct support to the tenant. The housing voucher program has been amended several times since its inception in 1937. To qualify for a voucher a household's income

Table 25
Tax Credit Units Placed in Service by Year in Utah

Year	Tax Credit Units Placed in Service	Permits Issued for Apartment Units	Tax Credit Units as Percent of Permits for New Apartment Units
1987	413	611	68%
1988	126	324	39%
1989	478	345	139%*
1990	345	770	45%
1991	424	681	62%
1992	939	1,154	81%
1993	818	2,925	28%
1994	782	3,163	25%
1995	501	4,513	11%
1996	427	5,327	8%
1997	724	3,352	22%
1998	768	3,766	20%
1999	946	2,668	35%
2000	1000	2,012	50%
2001	704	2,498	28%
2002	1541	1,750	88%
2003	1057	2,066	51%
2004	1176	2,230	53%
2005	986	2,234	44%
2006	1211	1,427	85%
2007	870	1,739	50%
2008	976	2,199	44%
2009	1506	2,979	51%
2010	460	1,723	27%
2011	506	2,130	24%
2012	687	2,290	30%
2013	890	2,521	35%
2014	923	6,742	14%
2015	502	5,029	10%
2016	919	5,735	16%
Total	24,923	76,903	32%

Note: The percentage greater than 100 percent is due to difference in timing between when building permits are issued and tax credit units are placed in service. Source: Utah Housing Corporation.

25,000 1,800 1,600 lative LIHTC Un 20,000 # of new LIHTC Units 1,400 1,200 15,000 1,000 800 10,000 600 Cumu 400 5,000 200 0 0 2002 2006 2007 2010 2012 2013 2000 2003 2004 2005 2008 2009 201 2014 2015 2016 1999 200 1987 1990 199' 1992 1993 1994 1995 1997 8661 3861 5861 9661 LIHTC Units Cumulative LIHTC Units Source: Utah Housing Corporation.

### Figure 7 Tax Credit Units Place in Service in Utah

cannot exceed 50 percent of the Area (county) Median Income. The voucher, in essence, is a cash subsidy, which can be used by the voucher holder to assist in their rent payment. Voucher holders pay no more than 30 percent of their income for rent and utilities. If rent and utilities exceed 30 percent of the household income the voucher pays the difference up to what is known as the Fair Market Rent (FMR.) FMR levels for every county are established by HUD. The FMR is the 40<sup>th</sup> percentile of gross rents (rent plus utilities). Housing and utility costs above the FMR cap are the responsibility of the tenant.

HUD Section 8 vouchers are administered by local public housing authorities. There are 17 housing authorities in Utah administering almost 11,000 Section 8 Housing Choice Vouchers (see Table 26). Policies of Housing Authority's often earmark a share of their vouchers for special needs populations: the elderly and disabled. Voucher holders represent four percent of total renter households in Utah.

Other Rent Assisted Programs. Other programs providing rental assistance are relatively small. There are a number of special vouchers programs targeted for various classes of individuals: refugee vouchers, criminal justice vouchers, shelter+care vouchers, HOPWA (HIV/AIDS) vouchers, HARP (homeless) vouchers, HUD project based vouchers, and state and county tenant based rental assistance vouchers. Some housing authorities have public housing units. For instance, the Housing Authority of Salt Lake County has 626 public housing units and the Housing Authority of Salt Lake City has 319 public housing units. These two housing authorities likely account for 90 percent of the public housing units in Utah. There are also some U.S. Department of Agriculture, Rural Development deep subsidy units in rural Utah, but the number is probably less than 500 units. And finally, the HUD Section 202 Supportive Housing for the Elderly includes perhaps another 500 units. This program provides assistance for the construction of new housing units. In total these "other" programs would add, at the most, another 5,000 units to the total number of rent assisted households in Utah.

### **Section 8 Housing Choice Vouchers by Housing Authority**

Housing Authority	Section 8 Vouchers	Years on Wait List
Beaver City	19	3 yrs
Carbon County	200	1-1.5 yrs
Cedar City	139	2 years
Davis County	940	2-3 yrs
Emery	91	2 years
Logan/Bear River	566	6-8 months
Myton City	33	NA
Ogden City	972	18 months
Provo City	883	1 year
Salt Lake City	2,325	5 years
Salt Lake County	2,493	5-6 years
Southeastern Utah	73	1 year
St. George	255	2-4 yrs
Tooele County	215	2 years
Utah County	1,059	NA
Weber County	124	5 years
West Valley City	531	4 years
Total	10,918	

Source: Survey of public housing authorities.

A rough estimate of the maximum number of rent assisted households in Utah is 41,000 households: 25,000 renters in tax credit units, 11,000 renters using Section 8 vouchers, and as many as 5,000 households using other voucher programs, public housing, or HUD 202 units. This estimate is the maximum number, but very likely overstates the number of household receiving rent assistance since some voucher holders are also tenants in tax credit units.

**Concentrations of Renters with Rent Assistance.** The location of Section 8 voucher holders and Low Income Tax Credit units have been overlaid on a base map displaying socioeconomic opportunity (see Maps 1-8). The opportunity index for each census tract was developed from a set of nine variables including housing tenure (owners and renters), housing cost burdens, educational attainment of residents, incidence of poverty, labor force participation rate, unemployment rate, number of individuals receiving public assistance, and percent of students eligible for free and reduce lunch (see Appendix for details). The opportunity index was originally developed in 2014 for the

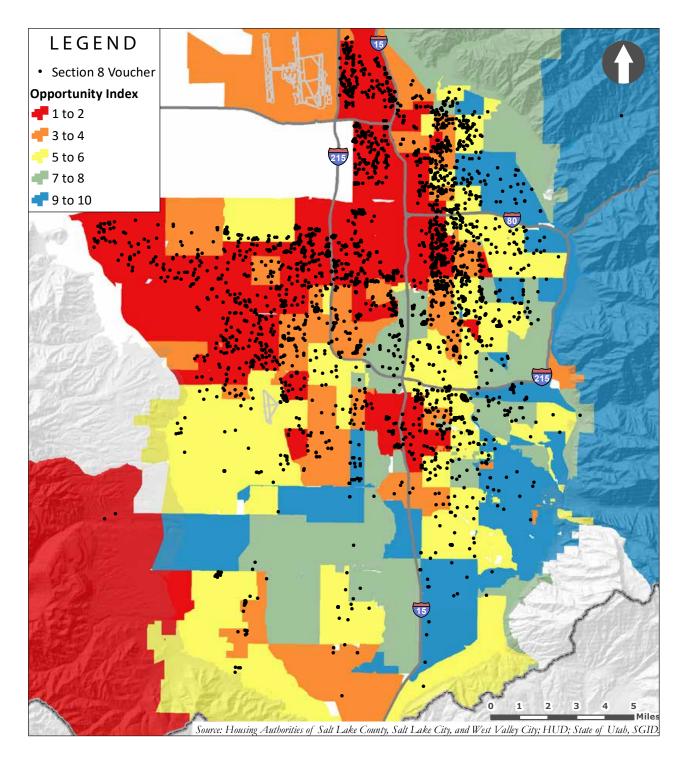
Sustainable Communities Regional Planning Program funded by a HUD grant. The variables were all given equal weight and the higher the score the higher the opportunity in that tract. The highest opportunity tracts are presented in dark blue and the lowest opportunity tracts in red. Data were insufficient or did not exist for tracts in white.

The maps vividly illustrate the concentration of rent assisted households in census tracts of low to moderate opportunity. Some degree of the concentration is understandable, given that commercial amenities, access to transportation, and jobs are often located in low to moderate opportunity census tracts. Nevertheless, the high concentration of rent assisted households in low opportunity households is troublesome. Voucher holders live predominately in low opportunity areas and as the maps show 70 percent or more of tax credit units are located in very low to low opportunity census tracts. In Salt Lake, 54 percent of all tax credit units are located in very low opportunity tracts. Weber County has an even higher concentration with 83 percent of tax credit units in very low opportunity tracts.

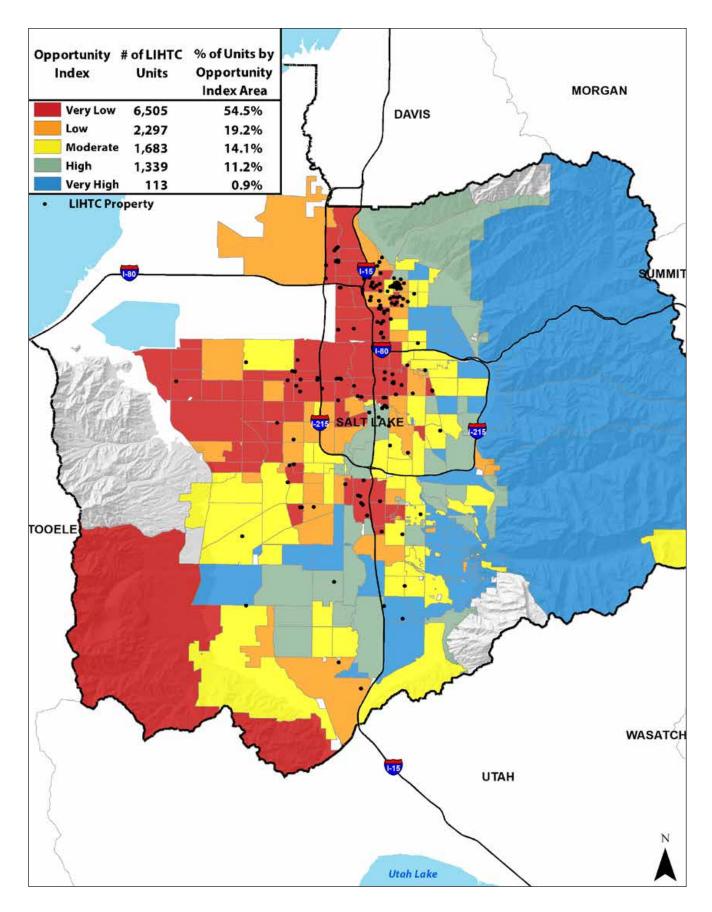
Achieving a better spatial distribution of affordable rent assisted units should be a high priority for local housing policymakers. Higher opportunity neighborhoods provide a significant advantages for children and their long-term education, employment, and economic outcomes. A recent article in the American Economic Review concludes that:

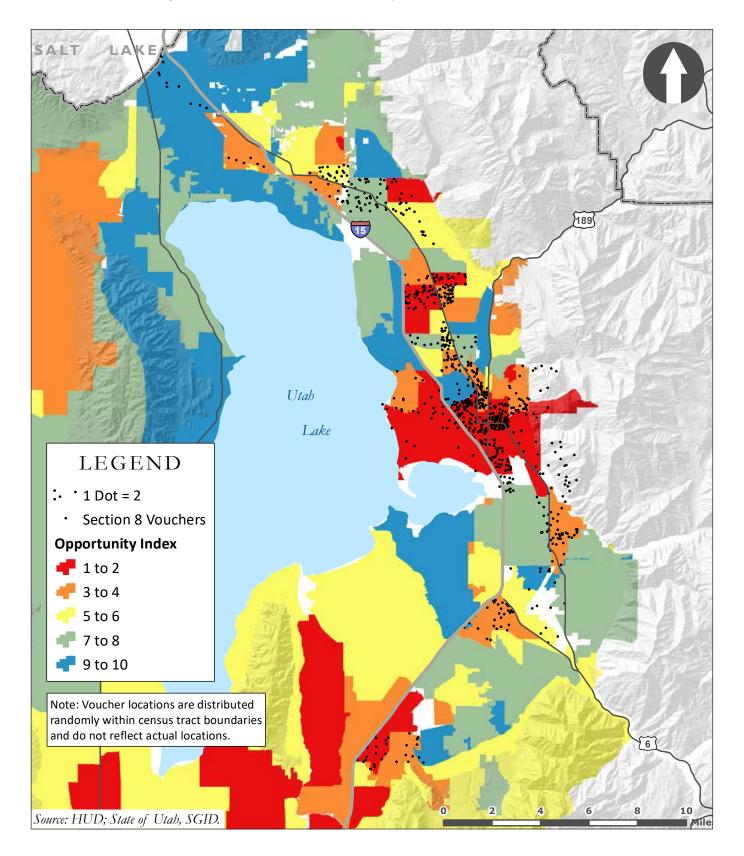
"The Moving to Opportunity experiment generated substantial gains for children who moved to lowerpoverty neighborhoods when they were young. We estimate that moving a child out of public housing to a low poverty area...will increase the child's lifetime earnings by about \$302,000. Our findings suggest...moving to lower poverty area can reduce the intergeneration persistence of poverty."<sup>8</sup>

Programs to reduce intergenerational poverty have been underway in Utah for some years through the Department of Workforce Services' Intergenerational Poverty Initiative. The recommendations of the initiative however, focus on health and education of children without mention of the importance of safe, affordable, stable housing for the well-being and the positive long-term outcomes of children.

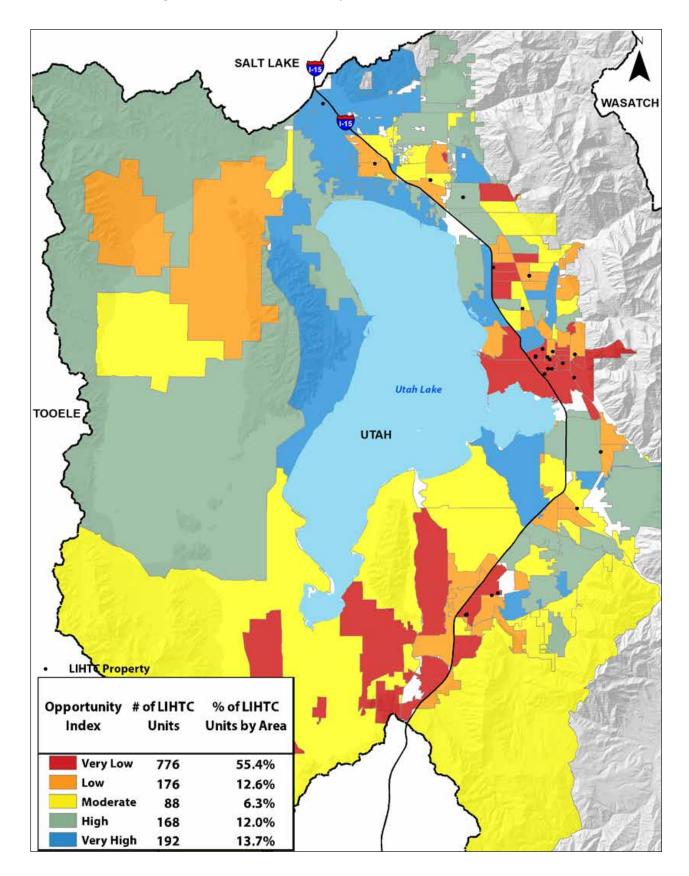


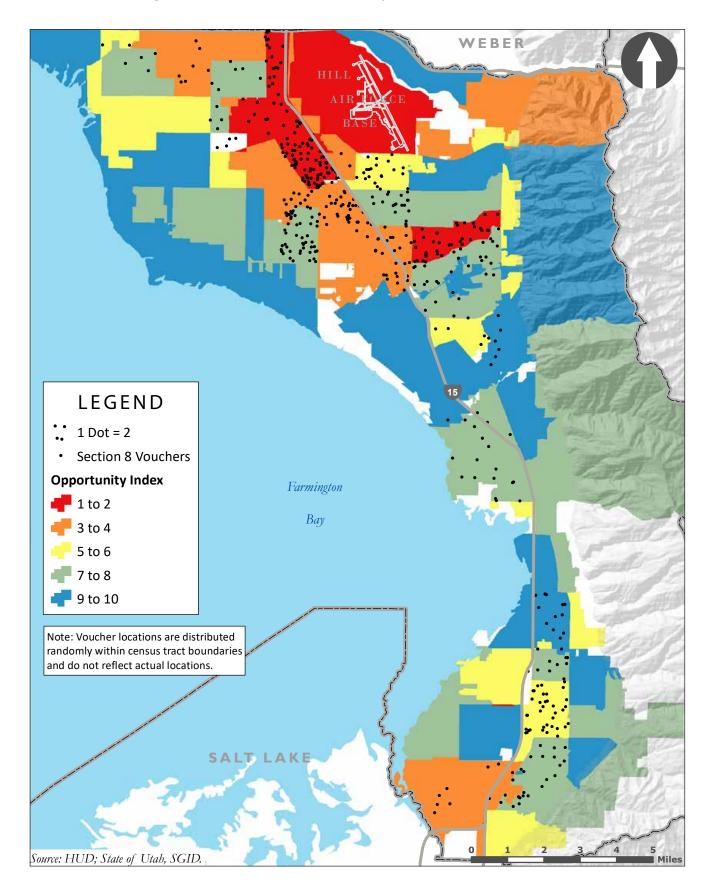
### Map 2 Location of Low Income Tax Credit Units, Salt Lake County

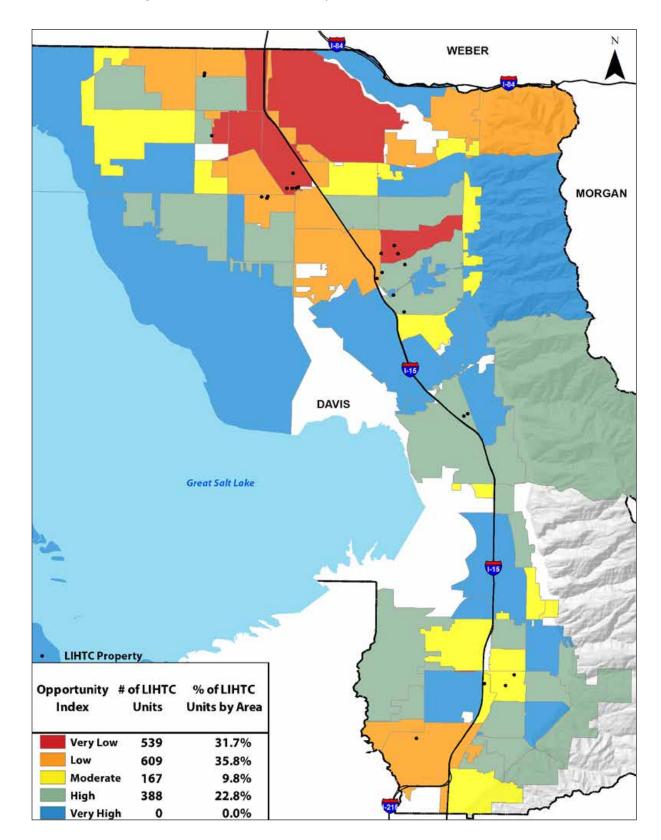


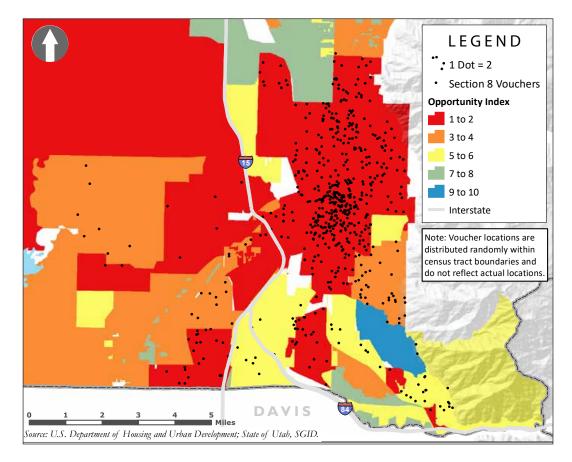


### Map 4 Location of Low Income Housing Tax Credit Units, Utah County



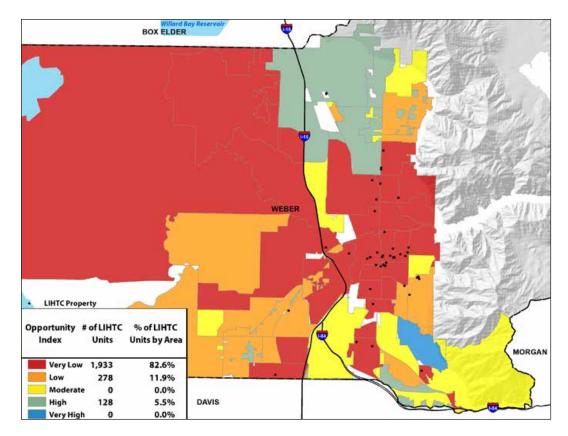






#### Map 8

#### Location of Low Income Housing Tax Credit Units, Weber County



#### **Housing Cost Burden**

The U.S. Department of Housing and Urban Development's Comprehensive Housing Affordability Strategy (CHAS) provides data on the housing cost burden of current owners and renters. Housing cost burden is divided into two groups: (1) households whose housing costs (including utilities) exceeds 30 percent of their monthly income and (2) households whose housing costs (including utilities) exceeds 50 percent of their monthly income. These households, at the 50 percent burden, face severe housing cost burdens. Of the slightly more than one million households in Utah, one in three face a housing cost burden of at least 30 percent and one in eight — 125,000 households — face a severe cost burden.<sup>9</sup>

"The Median Isn't the Message." Earlier in this section, two measures of affordability were discussed: the Housing Opportunity Index and the Median Multiple. To determine housing affordability these two measures rely on the median income and median housing price of a county or state. And these affordability measures show a fair degree of housing affordability in the Utah market. But using the median "as a measure" has significant limitations. In the well-known article titled, "The Median Isn't the Message," Stephen Jay Gould, a Harvard biologist states, "we view statistical measures of central tendency wrongly, indeed opposite to the appropriate interpretation in our actual world of variation, shadings, and continua. In short, we view means and medians as the hard realities and the variation that permits their calculation as a set of transient and imperfect measurements of this hidden essence." It is the variation in household income around the median income that provides a more complete and accurate picture of the issue of housing affordability. That is, how are households with incomes above and below the median income affected by rising housing prices?

**Severe Housing Cost Burden.** The current affordable housing crisis in Utah is concentrated in households with incomes below the median. A household with income below the median has a one in five chance of a severe housing cost burden, paying at least 50 percent of their income toward housing, while a household with income above the median has a one in 130 chance (see Table 27). By another measure a household with income below the median is 32 times as likely to have a severe housing cost burden as a household with income above the median. The probability of a severe cost burden increases the lower the household income. For those extremely low income households ( $\leq$  30 percent of median income) nearly two out of every three households — 60,000 households — face severe housing cost burdens.

#### Table 27

#### Percent of All Households with Severe Housing Cost Burden by Income in Utah

Households % of Median Income	Households with Severe Cost Burden	Total Households	% with Severe Cost Burden					
	All Households Below the Median							
<30%	60,570	95,490	63.4%					
30%=<50%	27,995	99,805	28.0%					
51%=<80%	13,265	165,660	8.0%					
81%=<100%	3,315	106,935	3.1%					
Total	105,145	467,890	22.5%					
ŀ	All Households Above the Median Income							
>100%	3,290	428,305	0.08%					

Source: HUD Comprehensive Housing Affordability Strategy (CHAS), https://www.huduser.gov/portal/datasets/cp.html#2006-2014

#### Table 28

#### Percent of Renter Households with Severe Housing Cost Burden by Income in Utah

Households % of Median Income	Households with Severe Cost Burden	Total Households	% with Severe Cost Burden					
	Households Below the Median							
<30%	41,360	62,315	66.4%					
30%=<50%	13,200	52,335	25.2%					
51%=<80%	2,240	63,975	3.5%					
81%=<100%	295	29,120	1.0%					
Total	57,095	207,745	27.5%					
Households Above the Median Income								
>100%	310	63,840	0.05%					

Source: HUD Comprehensive Housing Affordability Strategy (CHAS), https://www.huduser.gov/portal/datasets/cp.html#2006-2014

The likelihood of a severe housing cost burden also increases for renters. A renter with income below the median has more than a one in four chance of a severe housing cost burden while a renter with income above the median has a one in 200 chance of a severe cost burden (see Table 28).

The HUD CHAS estimates severe housing cost burdens for both owners and renters at the county level. Wasatch County has the highest share of home owners with severe housing cost burdens. Thirteen percent of all home owners in the county have severe housing cost burdens: statewide it's eight percent (see Table 29). Wayne County has the highest share of renters with severe housing cost burdens: a 27.9 percent share. Of major counties, Utah County, has the highest share at 23.6 percent (see Table 30).

# Table 29Counties Ranked by Owner Households with Severe Cost Burden

		Owner	Owner Households with Severe Cost Burden						% of Owners
Rank	County	Households	≤30% AMI	>30%-≤50% AMI	>50%-≤80% AMI	>80%-≤100% AMI	≥100% AMI	Total	with Severe Cost Burden
1	Wasatch	5,760	225	130	270	35	100	760	13.2%
2	Iron	9,515	545	325	115	120	45	1,150	12.1%
3	Wayne	810	70	10	10	4	0	94	11.6%
4	Washington	33,085	1,100	1,030	965	385	325	3,805	11.5%
5	Summit	10,255	365	330	145	140	195	1,175	11.5%
6	Rich	515	15	4	15	15	4	53	10.3%
7	Beaver	1,645	85	30	35	4	0	154	9.4%
8	Garfield	1,425	105	20	4	0	4	133	9.3%
9	Salt Lake	231,755	7,680	6,000	4,755	1,130	1,295	20,860	9.0%
10	Piute	480	35	4	4	0	0	43	9.0%
11	Juab	2,475	70	100	15	30	4	219	8.8%
12	Morgan	2,545	35	80	50	40	0	205	8.1%
13	Sevier	5,500	260	130	40	0	4	434	7.9%
14	Utah	97,920	2,160	2,550	1,865	500	650	7,725	7.9%
15	Cache	23,170	440	610	460	190	40	1,740	7.5%
16	San Juan	3,200	225	4	10	0	0	239	7.5%
17	Uintah	8,310	390	120	80	4	4	598	7.2%
18	Weber	56,950	2,000	1,110	760	125	80	4,075	7.2%
19	Carbon	5,480	250	95	20	4	0	369	6.7%
20	Daggett	220	10	0	4	0	0	14	6.4%
21	Davis	75,020	2,025	1,370	965	235	145	4,740	6.3%
22	Kane	2,280	55	45	30	0	10	140	6.1%
23	Box Elder	12,595	305	240	115	15	35	710	5.6%
24	Sanpete	5,895	130	95	90	4	4	323	5.5%
25	Tooele	14,075	360	195	120	15	45	735	5.2%
26	Millard	3,170	75	45	35	10	0	165	5.2%
27	Grand	2,530	70	45	4	0	0	119	4.7%
28	Duchesne	5,070	100	50	35	20	4	209	4.1%
29	Emery	2,950	35	35	4	4	0	78	2.6%
	State	624,600	19,220	14,802	11,020	3,029	2,993	51,064	8.2%

Source: HUD CHAS 2010-2014.

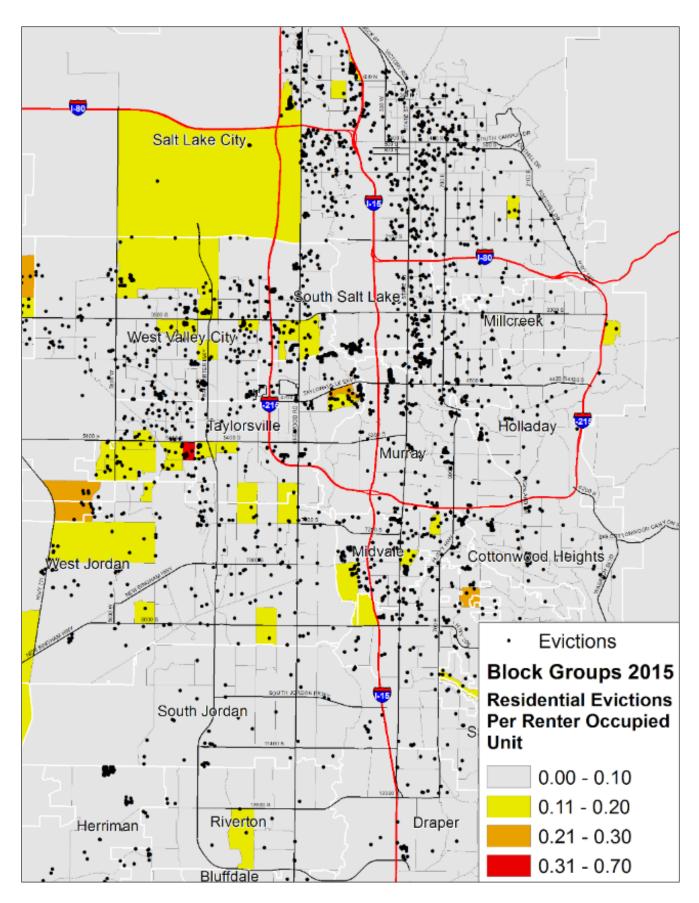
# Table 30Counties Ranked by Renter Households with Severe Cost Burden

		Owner	Owner Households with Severe Cost Burden					% of Owners	
Rank	County	Households	≤30% AMI	>30%-≤50% AMI	>50%-≤80% AMI	>80%-≤100% AMI	≥100% AMI	Total	with Severe Cost Burden
1	Wayne	140	35	4	0	0	0	39	27.9%
2	Grand	1,290	265	70	20	0	0	355	27.5%
3	Rich	110	15	4	10	0	0	29	26.4%
4	Utah	47,550	7,540	2,990	590	75	50	11,245	23.6%
5	Washington	14,820	1,975	1,065	300	25	65	3,430	23.1%
6	Juab	590	100	25	10	0	0	135	22.9%
7	Morgan	395	65	10	15	0	0	90	22.8%
8	Wasatch	1,990	315	80	50	4	0	449	22.6%
9	Salt Lake	116,355	18,495	6,230	800	95	90	25,170	21.6%
10	Cache	12,335	1,790	485	210	25	25	2,535	20.6%
11	Uintah	2,735	425	75	45	0	0	545	19.9%
12	Weber	22,910	3,715	610	65	10	40	4,440	19.4%
13	Davis	21,695	3,055	900	80	25	10	4,070	18.8%
14	Duchesne	1,670	220	80	4	0	0	304	18.2%
15	Iron	5,620	875	95	20	0	0	990	17.6%
16	Summit	3,170	345	120	10	15	0	490	15.5%
17	Emery	680	105	0	0	0	0	105	15.4%
18	Sevier	1,615	215	30	0	4	0	249	15.4%
19	Carbon	2,355	315	30	0	0	15	360	15.3%
20	San Juan	835	125	0	0	0	0	125	15.0%
21	Tooele	4,325	530	105	0	0	0	635	14.7%
22	Piute	75	10	0	0	0	0	10	13.3%
23	Box Elder	3,630	320	135	0	10	15	480	13.2%
24	Kane	645	55	30	0	0	0	85	13.2%
25	Sanpete	2,050	225	25	4	0	0	254	12.4%
26	Millard	1,040	120	4	4	0	0	128	12.3%
27	Garfield	390	40	4	0	0	0	44	11.3%
28	Beaver	515	55	0	0	0	0	55	10.7%
29	Daggett	55	4	0	0	0	0	4	7.3%
	State	271,585	41,349	13,206	2,237	288	310	57,390	21.1%

Source: HUD CHAS 2010-2014.

**Housing Cost Burden and Eviction.** Eviction data for counties in Utah are very limited however, two assistant professors at the University of Utah have recently completed a study of the number of evictions in Salt Lake County in 2015. Richard Medina, Assistant Professor of Geography and Kara Byrne, Assistant Professor of Social Work found a total of 4,019 evictions countywide in 2015. They have mapped the evictions by block group. The color coded map shows evictions relative to the number of renter occupied households within the block groups (see Map 9). The one block group with the highest rates of evictions per renter occupied household is shown in red with 70 percent of households experiencing at least one eviction filing. The incidence of evictions is relatively high, not surprisingly, for block groups in South Salt Lake, West Valley, Kearns, Magna, and Midvale. In 2015, there were 80,000 renters in Salt Lake County with incomes below 80 percent of the Area Median Income. It is likely that a very high percentage of the evictions in Salt Lake County were among these 80,000 renters. If so, the 4,000 evictions represent as much as 5 percent of renter households with incomes below 80 percent of the Area Median Income. Evictions have serious consequences often sending families to shelters, homelessness, or overcrowded situations with friends or family, as well as disrupting school attendance for children. The most vulnerable are low income families with children. The presence of children nationally triples the rate of eviction. As Matthew Desmond, author of "Evicted," related in a National Public Radio interview, "That's because, in the words of one landlord that I spent time with: you know kids cause us headache, you know, kids can destroy property or gain the attention of the police or an ambulance."<sup>10</sup>

#### Map 9 Evictions by Block Group, Salt Lake County 2015



# V. Outlook for Housing Prices and Affordability

#### What is the outlook for housing prices in Utah?

Housing prices in Utah will continue to increase at rates well above the national average due to relatively high rates of demographic and economic growth. But, the threat to affordability from rising prices may be secondary to increasing interest rates, which could significantly reduce housing affordability and homeownership opportunities for a large share of Utah households.

#### What is the outlook for Utah's housing shortage?

Given the size of the current housing shortfall and the expected increase in households, it is likely the housing shortage will persist over the next three to four years.

# How serious is the threat to affordability from rising rents and home prices?

Households near or below the median income face the greatest threat by far from rising home prices and rental rates. These households include recently hired teachers, police officers, fire fighters, and nurses. For those in these occupations, two incomes and ten-years of job experience are necessary for homeownership.

Over 125,000 households in Utah are currently facing severe housing cost burdens. An increase in rental rates threatens their economic well-being and increases their chances of eviction and homelessness. Additionally, increasing home prices can limit, if not exclude, homeownership opportunities for households below the median income, relegating them to the rental market without the opportunity for the wealth creation of homeownership. For households above the median income rising home prices create more difficult decisions, choices, and tradeoffs for prospective homebuyers, but generally do not exclude them from all homeownership opportunities.

#### What about affordability in the long-term?

If housing prices and household incomes in Utah increases at the same rate as the past 26 years, housing affordability in 2044 would be equivalent to today's San Francisco market. The median sales price of home would be more than \$700,000 (inflation adjusted). Even if the increase in housing prices is half the historic real rate of 3.3 percent, housing affordability in the Salt Lake and Provo-Orem metropolitan areas would be worse in 2044 than today's Seattle market. The projected decline in affordability in the Salt Lake and Provo-Orem metropolitan is a result of the historic gap between the annual real rate of increase in household income of 0.36 percent and the annual real rate of increase in the median sales price of a home of 3.3 percent. Historically, housing prices have risen much faster than incomes in Utah. Over the past nine years the negative effects of this gap in growth between household income and housing prices has been mostly masked by low interest rates. But with such a large gap it won't take long, in an environment of higher interest rates, for the Utah housing market to reach harmful levels of affordability that will exclude much larger numbers of households from homeownership.

#### How serious is the affordable housing issue?

Despite the presence of 11,000 HUD Section 8 Housing Choice Vouchers, 25,000 tax credit rental units, and another 5,000 assisted units through various HUD and Rural Development programs, there is a large shortfall of affordable rental housing in Utah. At least 75,000 renter households have incomes below the median and have no rental assistance, and face severe housing cost burdens. Many of these households face an affordable housing crisis.

# What role do land development costs and local municipal fees played in higher housing costs?

From 2007 to 2017 development costs for a building lot increased from \$37,000 to \$52,000. The \$15,000 increase in development costs represents one quarter of the 10 year increase in construction cost—\$180,000 to \$240,000—for the typical 2,000 square foot home. Permit and impact fees play a lesser role in the increase in new home prices. The median cost for permit and impact fees for the 18 rapidly growing cities surveyed show that these fees increased from \$12,157 in 2007 to \$15,265 in 2017.<sup>11</sup>

# Do increasing housing prices threaten Utah's economic growth?

No, not at this point. Utah's recent economic growth has been exceptional. Judging from the data on the median multiple the Wasatch Front counties have a housing price advantage over most west coast cities from Seattle to San Diego as well as Denver and Reno. But, housing prices in the Salt Lake and Provo-Orem metropolitan areas are 20 percent higher than Boise, Las Vegas, and Phoenix; three cities Utah competes with for new business expansions. The housing price gap with these cities makes Utah's economic development efforts less competitive and the state less attractive as a business location.

## VI. Policy Considerations

Many of the causes of housing prices increases are beyond the control of policy makers. Labor shortages, Wasatch Front topography, and material and labor costs are three of the most important causes unrelated to public policies. But potential sources of cost control are the policies and ordinances of local government. Those cities that adopt measures encouraging and supporting housing affordability will improve the overall prosperity, air quality, as well as housing and transportation cost not only for their cities, but for the region and state. Possible considerations include:

- Waive or reduce fees for affordable housing.
  - Adopt inclusionary zoning ordinances that provide a wide range of housing types and prices.
  - Adopt accessory dwelling unit ordinance.
  - Exercise restraint in impact and permit fee increases.
  - Change building codes to encourage more affordable housing.
- Explore new funding models such as public/private partnerships, RDA and EDA set-asides for affordable housing.
  - Facilitate in-fill development.
  - Target a greater share of TOD mixed-used projects for very low income households (≤50 percent area median income.)
- Identify best practices that have been successful in increasing the availability of affordable housing. Many cities are addressing the affordable housing crisis in a number creative ways.
  - Provide legal services for low income renters in eviction hearings.
  - Strengthen code enforcement requiring landlords to maintain buildings.
  - Explore pay for success programs to support housing mobility.<sup>12</sup>
- Examine the relationship between the affordability crisis and wage rates. The affordable housing crisis is not only about the cost of housing, but also about low wage rates.
  - Adopt policies and programs to encourage and allow low income households to move to higher opportunity areas.

### Glossary

**Affordable housing:** An affordable housing units is defined as a unit in which an owner or tenant pays no more than 30 percent of their household income toward housing costs. The term is often used to refer to affordable housing for low, very low, and extremely low income groups. Affordable is an adjective modifying housing.

**Cost burden:** Housing practitioners, financial institutions, and U.S. Department of Housing and Urban Development have long used the 30 percent rule to determine affordability. A household that pays 30 percent or more of their income on housing costs is considered to be cost burdened. A household that pays 50 percent or more of their income on housing costs is considered severely cost burdened.

**Housing affordability:** A term referring to the general level of housing prices for all income groups. The word affordability is used as a noun.

**Median household income:** The midpoint of the distribution of the income for all households in a geographic area. The median household income is estimated for geographic areas by U.S. Census Bureau. For the analysis in this report median income generally refers to the state or county median household income.

#### **Opportunity Index**

Using the data for five variables from HUD's Affirmatively Furthering Fair Housing database, plus four other variables, opportunity indices were developed at the census tract level for the four Wasatch Front counties. The nine variables in the revised opportunity indices include the following:

- Percent of owner occupied households with severe housing cost burden (50% percent of income required for housing and utilities). (Source: HUD Comprehensive Housing Affordability Strategy).
- (2) Percent of renter households with severe housing cost burden. (Source: HUD Comprehensive Housing Affordability Strategy.)
- (3) Percent of homeowners. (Source: American Community Survey.)
- (4) Percent of individuals with at least B.S. degree. (Source: HUD AFFH database.)
- (5) Percent of individuals (non-student) in poverty. (Source:HUD Affirmatively Furthering Fair Housing (AFFH) database.)
- (6) Labor force participation rate. (Source: HUD AFFH database.)
- (7) Percent unemployed. (Source: HUD AFFH database.)
- (8) Percent of individuals receiving public assistance. (Source: HUD AFFH database.)
- (9) Percent of students eligible for free and reduced lunch.(Source: Utah State Board of Education.)

Each variable for each census tract was scored based on percent of occurrence. For example, the non-student poverty rate ranges from one percent of individuals in a South Jordan tract to 42 percent for a South Salt Lake tract. Tracts with a poverty rate of four percent or lower were assigned a score of 9.0 (midpoint of opportunity score of eight to 10), while those tracts with a poverty rate of 20 percent or more were given a score of 1.0. A similar process of scoring was followed for all nine variables and the total score for each tract calculated. The variables were all given equal weight and the higher the score the higher the opportunity in that tract. The highest opportunity tracts are presented in dark blue and the lowest opportunity tracts in dark brown. Data were insufficient or did not exist for tracts in white.

#### Appendix

#### Home Builder Survey Home Builders Surveyed and Respondents

Companies Survey	Completed Survey
Arive Homes	Х
Bach Homes	
Brighton Homes	Х
Candlelight Homes	Х
Castle Creek Homes	Х
DR Horton Inc.	Х
Destination Homes	Х
Edge Homes	Х
Ence Homes	
Fieldstone Homes	
Flagship Homes	
Garbett Construction	Х
Henry Walker Homes	Х
Holmes Homes	Х
Ivory Homes	Х
McArthur Homes	
Nilson Homes	
Oakwood Homes	
Perry Homes	Х
Rainey Homes	
Richmond America Homes	
Salisbury Homes	Х
Symphony Homes	
Vollkommen Construction	Х
Westates Construction	
Woodside Homes	Х

Source: Kem C. Gardner Policy Institute.

### Endnotes

- 1 The median income in Utah in 2016 was \$65,977.
- 2 An affordable housing units is defined, by housing practitioners, as a unit in which an owner or tenant pays no more than 30 percent of their household income toward housing costs.
- 3 Federal Housing Finance Agency's housing price index.
- 4 U.S. Census Bureau, *Price Deflator Index for New Homes Under Construction*.
- U.S. Census Bureau, News Release Number CB17-210 Fastest-Growing State, Census Bureau Reports, December 20, 2017 and U.S. Bureau of Labor Statistics, Employment, Hours, and Earnings, State and Metro Area.
- 6 Assumptions: Include single family, and multifamily. Five percent down payment, prevailing interest rate, property tax at 0.007 of home value, homeowners insurance \$50/month, Private mortgage insurance .0055 of home value. Components: mortgage is 80 percent of payment remaining 20 percent taxes, insurance, and insurance. Ratio of mortgage to income 28 percent.
- 7 Utah Education Policy Center, University of Utah, "Beginning Teacher Turnover in Utah From 2008-2009 and 014-2015."
- 8 Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz, "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment," *American Economic Review*, 2016, 106 (4): 855-902.
- 9 HUD Comprehensive Housing Affordability Strategy (CHAS) for Utah, https://www.huduser.gov/portal/datasets/cp.html#2006-2014.
- 10 Interview of Matthew Desmond by David Brancaccio and Katie Long, *Market Place Morning Report*, April 9, 2018.
- 11 Survey of Ivory Homes land development costs, years 2007 and 2017, and survey by Kem C. Gardner Policy Institute of impact and permits fees of 18 cities, years 2007 and 2017.
- 12 Federal Reserve Bank of San Francisco, *Leveraging the Power* of Place: Using Pay for Success to Support Housing Mobility, July 2015, Working Paper.

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Samantha Ball, Research Associate Mallory Bateman, Research Analyst DJ Benway, Research Analyst Marin Christensen, Research Associate Mike Christensen, Scholar-in-Residence John C. Downen, Senior Research Analyst Dejan Eskic, Research Associate Emily Harris, Demographic Analyst Michael T. Hogue, Senior Research Statistician Mike Hollingshaus, Demographer Thomas Holst, Senior Energy Analyst Meredith King, Research Associate Colleen Larson, Administrative Manager Shelley Kruger, Accounting and **Finance Manager** Jennifer Leaver, Research Analyst Angela Oh, Senior Economist Levi Pace, Research Analyst Joshua Spolsdoff, Research Associate Laura Summers, Senior Health Care Analyst Nicholas Thiriot, Communications Director Natalie Young, Research Analyst

#### Kem C. Gardner Policy Institute

Thomas S. Monson Center | 411 E. South Temple Street Salt Lake City, UT 84111 | 801-585-5618 | gardner.utah.edu

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